

# FLOOD INSURANCE STUDY

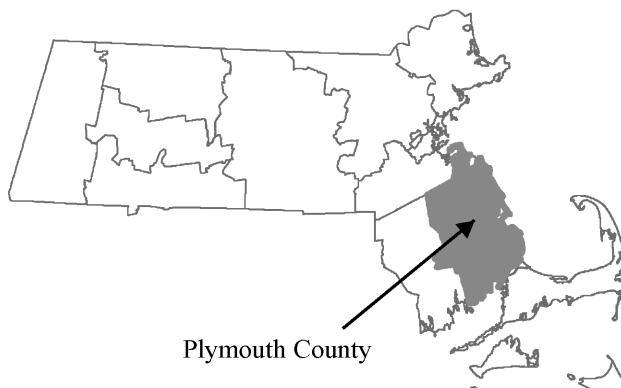


## PLYMOUTH COUNTY, MASSACHUSETTS (ALL JURISDICTIONS)

### Volume 2 of 4

**COMMUNITY NAME**  
ABINGTON, TOWN OF  
BRIDGEWATER, TOWN OF  
BROCKTON, CITY OF  
CARVER, TOWN OF  
DUXBURY, TOWN OF  
EAST BRIDGEWATER, TOWN OF  
HALIFAX, TOWN OF  
HANOVER, TOWN OF  
HANSON, TOWN OF  
HINGHAM, TOWN OF  
HULL, TOWN OF  
KINGSTON, TOWN OF  
LAKEVILLE, TOWN OF  
MARION, TOWN OF  
MARSHFIELD, TOWN OF  
MATTAPOISETT, TOWN OF  
MIDDLEBOROUGH, TOWN OF  
NORWELL, TOWN OF  
PEMBROKE, TOWN OF  
PLYMOUTH, TOWN OF  
PLYMPTON, TOWN OF  
ROCHESTER, TOWN OF  
ROCKLAND, TOWN OF  
SCITUATE, TOWN OF  
WAREHAM, TOWN OF  
WEST BRIDGEWATER, TOWN OF  
WHITMAN, TOWN OF

**COMMUNITY NUMBER**  
250259  
250260  
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250263  
250264  
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250269  
250270  
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250285



REVISED  
NOVEMBER 4, 2016



Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER  
25023CV002C

NOTICE TO  
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

The Federal Emergency Management Agency (FEMA) may revise and republish part or all of this Preliminary FIS report at any time. In addition, FEMA may revise part of this FIS report by the Letter of Map Revision (LOMR) process, which does not involve republication or redistribution of the FIS report. Therefore, users should consult community officials and check the Community Map Repository to obtain the most current FIS components.

Initial Countywide FIS Effective Date: July 17, 2012

Revised Countywide FIS Effective Date: July 16, 2015

Revised Countywide FIS Effective Date: November 4, 2016

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## 4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent-annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

### 4.1 Floodplain Boundaries

In order to provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community.

#### Precountywide Analyses

For unrevised streams in Plymouth County, data was taken from previously printed FISs for each individual community and is compiled below.

For each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using the following topographic maps:

- Town of Abington: 1:2,400 scale with a contour interval of 5 feet for detailed and 1:24,000 scale with a contour interval of 10 feet for approximate (References 111 and 112)
- Town of Bridgewater: 1:24,000 scale and 1:25,000 scale for the revised FIS with a contour interval of 10 feet (References 113 and 114)
- City of Brockton: 1:24,000 scale with a contour interval of 10 feet (Reference 113)
- Town of Carver: 1:4,800 scale with a contour interval of 5 feet for detailed and 1:25,000 scale with a contour interval of 10 feet for approximate (References 72, 113, and 115)
- Town of Duxbury: 1:4,800 scale with a contour interval of 4 feet, 1:20,000 scale with a contour interval of 100 feet for the original study, and, in the revised FIS, 1:4,800 scale with a contour interval of 4 feet for detailed and 1:25,000 scale with a contour interval of 10 feet for approximate (References 103, 108 and 109) (References 113, 108, and 109)
- Town of East Bridgewater: 1:24,000 scale with a contour interval of 10 feet (Reference 113)
- Town of Halifax: 1:4,800 scale with a contour interval of 5 feet for detailed and 1:24,000 scale with a contour interval of 10 feet for approximate (References 118 and 119)



- Town of Hanover: 1:2,400 and 1:4,800 scale with a contour interval of 5 feet (References 120, 121, and 122)
- Town of Hanson: 1:4,800 scale with contour intervals of 5 feet and 10 feet (References 123 and 124)
- Town of Hingham: 1:4,800 scale with a contour interval of 5 feet for detailed and 1:7,200 and 1:24,000 scales with a contour interval of 10 feet for approximate (References 70, 73, 125, and 126)
- Town of Hull: 1:4,800 scale with a contour interval of 5 feet and previous studies (Reference 127)
- Town of Kingston: 1:4,800 scale with a contour interval of 5 feet and previous studies (References 128, 129, and 130)
- Town of Lakeville: 1:24,000 scale with a contour interval of 10 feet (Reference 40)
- Town of Marion: 1:4,800 scale with a contour interval of 5 feet for detailed and previous studies for approximate (Reference 131)
- Town of Marshfield: 1:2,400 scale with a contour interval of 5 feet for the original study; 1:4,800, 1:20,000, and 1:25,000 scales with contour intervals of 4 feet, 10 feet, and 3 meters, respectively, for the revision; and previous studies for approximate (References 132 and 133)
- Town of Mattapoisett: 1:4,800 scale with a contour interval of 2 feet for detailed and previous studies for approximate (References 134 and 135)
- Town of Middleborough: 1:24,000 scale with a contour interval of 10 feet (Reference 40)
- Town of Norwell: 1:1,200 scale with a contour interval of 2 feet for detailed and previous studies for approximate (References 75 and 136)
- Town of Pembroke: 1:24,000 scale with a contour interval of 10 feet (Reference 78)
- Town of Plymouth: 1:4,800 scale with contour intervals of 5 feet and 3 meters for detailed and 1:24,000 and 1:25,000 scales with a contour interval of 10 feet for approximate (References 92, 137, 138, 139, and 140)
- Town of Plympton: 1:4,800 scale with a contour interval of 5 feet for detailed and 1:24,000 scale with a contour interval of 10 feet for approximate (References 141 and 142)
- Town of Rochester: 1:4,800 scale with a contour interval of 5 feet for detailed and previous studies for approximate (References 143 and 144)
- Town of Rockland: 1:4,800 scale with a contour interval of 5 feet for detailed and previous studies for approximate (References 145 and 146)
- Town of Scituate: 1:4,800 scale with a contour interval of 5 feet in the original study and with a contour interval of 4 feet in the revised FIS for detailed and previous studies for approximate (References 147 and 148)
- Town of Wareham: 1:4,800 scale with a contour interval of 5 feet for detailed and previous studies for approximate (References 149 and 150)
- Town of West Bridgewater: 1:24,000 scale with a contour interval of 10 feet (References 39 and 151)
- Town of Whitman: 1:4,800 scale with a contour interval of 5 feet for detailed and previous studies for approximate (References 152 and 153)

### Countywide Analyses

For the tidal areas with wave action in the Towns of Hingham, Kingston, Marion, Mattapoisett, and Wareham, the flood boundaries were delineated using the elevations determined at each transect; between transects, the boundaries were interpolated using engineering judgment, land-cover data, and the topographic maps referenced above (References 98 and 99). The 100-year floodplain was divided into whole-foot elevation zones based on the average wave envelope elevation in that zone. Where the map scale did not permit these zones to be delineated at one-foot intervals, larger increments were used.

For the July 16, 2015 countywide analysis, floodplain boundaries were delineated using the water-surface elevations determined at each cross section or interpolated between cross sections. The topographic data used was a LiDAR digital elevation model (DEM) with a two-meter resolution. The 1- and 0.2-percent-annual-chance floodplains were shown everywhere their respective water-surface elevations were higher than the LiDAR ground-surface elevation. This floodplain mapping was performed for the study's revised streams (Nemasket River, Taunton River, Assawompset Pond, and Long Pond), and certain nearby detailed- and approximate-study streams (those falling on the same panels as the revised streams) were also redelineated by this method. The water-surface elevations for the redelineated reaches were taken from effective FIS reports (detailed-study streams) or estimated by overlaying the effective floodplain boundary on the LiDAR DEM (approximate-study streams). All panels with the July 16, 2015 effective date, then, have been entirely mapped using a consistent, high-resolution topography.

For coastal flooding sources in the Towns of Duxbury, Kingston, Marshfield, Scituate, and Plymouth, the 1- and 0.2-percent-annual-chance flood boundaries were delineated using 2-foot-contour topographic maps developed from LiDAR data collected in 2010 (Reference 110).

The 1- and 0.2-percent-annual-chance floodplain boundaries are shown on the FIRM. On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (Zones A, AE, AO, AH, V, and VE), and the 0.2-percent-annual-chance floodplain boundary corresponds to the boundary of areas of moderate flood hazards. In cases where the 1- and 0.2-percent-annual-chance floodplain boundaries are close together, only the 1-percent-annual-chance floodplain boundary has been shown. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM.

#### 4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the

channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the base flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The floodways presented in this FIS were computed for certain stream segments on the basis of equal conveyance reduction from each side of the floodplain. Floodway widths were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. The results of the floodway computations are tabulated for selected cross sections (see Table 15, "Floodway Data"). In cases where the floodway and 1-percent-annual-chance floodplain boundaries are either close together or collinear, only the floodway boundary is shown.

#### Precountywide Analyses

The findings in the Town of Abington indicate that, because of the relatively narrow widths of the floodplain along the Shumatuscacant River, any future development in this area should be prohibited. The only area along this river that could conceivably be encroached upon without a detrimental effect on upstream flooding would be the swampy area south of Summer Street and east of Walnut Street. This area has been zoned as a wetlands area by the town zoning bylaws and any construction in this area should be avoided. Therefore, no floodway was calculated for the Shumatuscacant River and the "North Tributary" Shumatuscacant River.

No floodways were computed for Tributary A to Sawmill Brook.

For some segments in the City of Brockton along Salisbury and Trout Brooks, the 1-percent-annual-chance flood boundary is contained within the banks of the waterway. In these situations, encroachment was not feasible and, therefore, no floodway was determined.

Floodways were not computed in the Town of Duxbury.

There have been no floodway calculations made for the North River. Because the North River is tidal and the flood elevations are affected by tidal surges, any encroachments may produce hazardous velocities.

Generally, a floodway is not appropriate in areas such as those that may be inundated by the floodwaters from tidal or lake flooding. Thus, no floodway was prepared for the lower reaches of the North River and the entire length of Robinson Creek, where flooding results from high levels of the tide, or for Furnace and Oldham Ponds, where flooding results from high pond levels rather than from high stream flow.

A floodway was not appropriate for Indian Head River upstream of Curtis Crossing, as the 1-percent-annual-chance boundary was determined to be nearly within the limit of the stream channel along almost the entire length of the detailed study area; therefore, the limits of the encroachment would be up to the bank and no more, as defined by the definition of a floodway. A floodway was also not determined for the portion of Herring Brook from a

point downstream of Mill Pond to Furnace Pond. This portion of the brook is characterized by ponds and cranberry bogs, and, as such, should not be encroached upon.

One aspect of floodway and floodplain encroachment is sometimes overlooked and more often neglected: the cumulative effect of encroachment on flood discharge magnitude. Generally, as encroachment occurs, temporary storage areas are lost, velocities increase, and the magnitude of the discharge increases. As floodwaters move downstream, that increase can become more significant. The combined effect of a narrower floodplain and greater discharge can, due to hydraulic effects alone, produce a flood stage that exceeds the anticipated 1-percent-annual-chance flood. For this reason, no floodway was computed or shown for portions of South Meadow Brook, Rocky Brook, and Crane Brook.

#### Countywide Analyses

For the July 16, 2015 countywide revision, floodway analysis was performed using new detailed hydraulic models for the reaches of Nemasket River and Taunton River described in Table 3. No floodway was computed for Assawompset Pond or Long Pond. Unless otherwise specified, values in the Floodway Data Table (Table 15) for these five reaches are updated values from the July 16, 2015 study.

The November 4, 2016 coastal study impacted the limit of backwater effects on some of the Floodway Data Tables and Flood Profiles by revising the annual 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations at the confluence of rivers and the coastal flooding sources. Affected Floodway Data Tables and Flood Profiles were updated for Beaver Dam Brook, Branch of Eel River, Eel River (Plymouth) First Herring Brook, Town Brook and Satuit Brook.

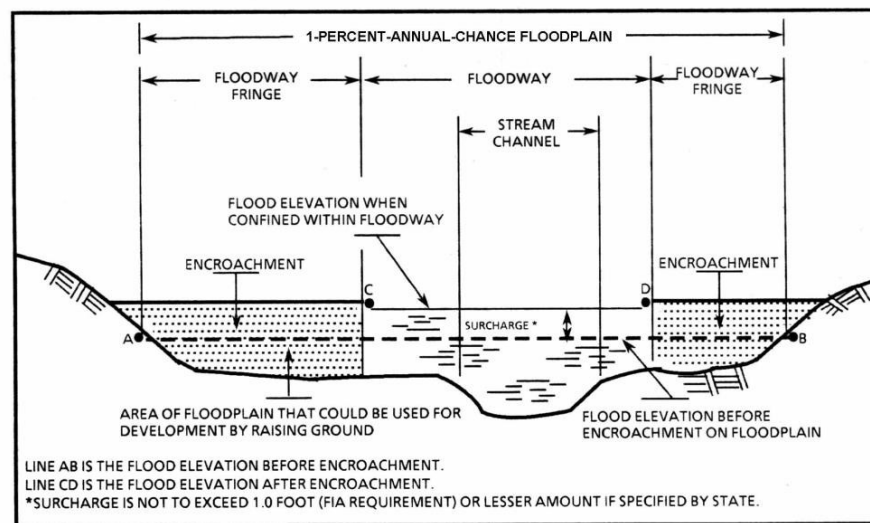
FEMA does not encourage the filling in of the floodway fringe area. Local officials should be aware that even a 1-foot rise in the water-surface elevation can cause flooding in areas which would have received little or no flooding if such filling had not taken place. Careful consideration of the economic and human dislocation which will be caused by a rise in flood heights should be made before filling is allowed. Large quantities of fill in the fringe area could also disrupt the floodplain ecosystem, causing a major impact on local environmental resources. Communities are encouraged by FEMA to adopt wider, more restrictive floodways and to minimize the amount of fill allowed in the fringe areas. Such actions also meet the intent of the Massachusetts Wetlands Protection Act (Massachusetts General Law, Chapter 131, Section 40). Under the provisions of the act, the local conservation commission and the Massachusetts Department of Environmental Quality Engineering have the authority to impose "orders of condition" regulating floodplain areas subject to flooding and wetland alterations. The orders normally require compensatory storage to replace any loss resulting from proposed floodplain alterations. In order to achieve a unified floodplain and wetlands management program, numerous Massachusetts communities have adopted local zoning by-laws, ordinances, subdivision regulations, and local Board of Health regulations augmenting the minimum requirements of the NFIP and the Wetlands Protection Act. FEMA encourages the use of this FIS as the technical basis for adoption of a broader, more encompassing local flood plain management program.

Encroachment into areas subject to inundation by floodwaters having hazardous velocities aggravates the risk of flood damage, and heightens potential flood hazards by further increasing velocities. A listing of stream velocities at selected cross sections is provided in Table 15, "Floodway Data." In order to reduce the risk of property damage in areas where

the stream velocities are high, the community may wish to restrict development in areas outside the floodway.

Near the mouths of streams studied in detail, floodway computations are made without regard to flood elevations on the receiving water body. Therefore, "Without Floodway" elevations presented in Table 15 for certain downstream cross sections of many reaches are lower than the regulatory flood elevations in that area, which must take into account the 1-percent-annual-chance flooding due to backwater from other sources.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation (WSEL) of the base flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 3, "Floodway Schematic".



**Figure 3 – FLOODWAY SCHEMATIC**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	16,178	128	437	0.6	107.5	107.5	108.4	0.9
B	16,284	100	428	0.6	107.5	107.5	108.5	1.0
C	17,234	188	929	0.3	107.5	107.5	108.5	1.0
D	18,290	9	48	5.3	112.6	112.6	112.6	0.0
E	18,396	87	334	0.8	113.1	113.1	113.1	0.0
F	19,314	128	541	0.5	113.2	113.2	113.3	0.1
G	20,164	405	1,733	0.1	113.2	113.2	113.4	0.2
H	21,738	206	703	0.4	113.2	113.2	113.4	0.2
I	22,857	39	56	4.5	113.7	113.7	114.6	0.9
J	23,681	128	338	0.8	116.0	116.0	117.0	1.0
K	24,980	16	39	6.6	118.6	118.6	118.9	0.3
L	26,337	92	382	0.7	124.4	124.4	124.5	0.1
M	26,437	56	185	1.4	124.4	124.4	124.5	0.1

<sup>1</sup> FEET ABOVE CONFLUENCE WITH PLYMOUTH RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		ACCORD BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	38	326	2.4	63.9	63.9	64.9	1.0
B	800	33	174	5.8	68.9	68.9	69.9	1.0
C	3,520	200	912	1.1	73.2	73.2	74.2	1.0
D	4,800	34	288	3.1	77.6	77.6	78.6	1.0
E	6,320	40	67	7.3	88.4	88.4	88.7	0.3
F	8,080	71	704	2.1	93.6	93.6	94.6	1.0

<sup>1</sup> FEET ABOVE ELM STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		BEAVER BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,950	240	901	1.5	9.5 <sup>2</sup>	9.9	10.9	1.0
B	4,250	37	185	7.2	13.4 <sup>3</sup>	13.4	13.4	0.0
C	4,350	250	1,620	0.8	15.0	15.0	15.9	0.9
D	5,000	490	3,127	0.4	15.1	15.1	16.0	0.9
E	5,900	21	230	4.6	18.0	18.0	18.4	0.4
F	6,000	72	695	1.5	18.6	18.6	19.1	0.5
G	7,100	162	1,328	0.8	18.9	18.9	19.5	0.6
H	8,600	384	3,578	0.3	18.9	18.9	19.5	0.6

<sup>1</sup> FEET ABOVE CONFLUENCE WITH CAPE COD BAY

<sup>2</sup> ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

<sup>3</sup> ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS; PLEASE REFER TO THE ASSOCIATED DFIRM PANEL FOR BASE FLOOD ELEVATIONS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		BEAVER DAM BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,400	108	221	0.5	90.4	88.3 <sup>2</sup>	89.3 <sup>2</sup>	1.0
B	2,040	38	17	2.9	90.4	90.0 <sup>2</sup>	90.1 <sup>2</sup>	0.1
C	3,580	10	25	2.0	97.8	97.8	98.0	0.2
D	4,620	13	22	2.3	100.5	100.5	100.6	0.1

<sup>1</sup> FEET ABOVE CONFLUENCE WITH WEST MEADOW BROOK

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEST MEADOW BROOK

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		BLACK BETTY BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	50	19	64	4.1	37.6	37.6	38.4	0.8
B	600	20	48	5.5	41.2	41.2	41.2	0.0
C	1,090	20	55	4.7	43.8	43.8	44.4	0.6
D	1,440	15	38	6.9	48.2	48.2	48.6	0.4
E	1,650	60	128	2.0	50.9	50.9	51.9	1.0
F	1,960	25	57	4.6	52.7	52.7	52.8	0.1
G	2,100	15	37	5.7	52.9	52.9	53.2	0.3
H	2,800	27	67	3.1	56.3	56.3	56.7	0.4
I	3,370	15	39	5.3	58.3	58.3	58.9	0.6
J	3,440	15	27	7.7	59.9	59.9	60.1	0.2
K	4,270	16	55	3.8	65.4	65.4	66.3	0.9
L	4,720	16	49	4.3	67.1	67.1	67.9	0.8
M	5,200	16	59	3.6	68.6	68.6	69.6	1.0
N	6,000	40	80	1.9	72.1	72.1	72.5	0.4
O	6,310	23	28	5.3	75.3	75.3	75.3	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH SECOND HERRING BROOK

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	BLACK POND BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	10	95	617	1.4	14.2	14.2	15.2	1.0
B	110	200	1,557	0.6	14.3	14.3	15.3	1.0
C	710	100	550	1.6	14.4	14.4	15.4	1.0
D	1,410	140	534	1.6	16.7	16.7	17.1	0.4
E	1,500	147	565	1.6	18.3	18.3	18.7	0.4
F	1,850	77	510	1.7	18.3	18.3	18.8	0.5
G	1,950	242	1,788	0.5	19.2	19.2	19.4	0.2
H	2,850	90	145	6.1	23.0	23.0	23.0	0.0
I	4,450	273	1,436	0.5	29.4	29.4	30.1	0.7
J	5,450	349	898	0.7	30.2	30.2	30.2	0.0
K	6,000	180	347	1.9	30.6	30.6	30.8	0.2

<sup>1</sup> FEET ABOVE MORDECAI LINCOLN ROAD

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		BOUND BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	600	116	396	2.7	9.5 <sup>2</sup>	9.2 <sup>3</sup>	10.2	1.0
B	1,265	101	298	3.6	16.7	16.7	16.7	0.0
C	1,380	340	2,495	0.4	17.9	17.9	18.4	0.5
D	1,980	506	4,642	0.2	17.9	17.9	18.4	0.5
E	2,695	16	134	7.9	18.5	18.5	19.4	0.9
F	2,810	223	1,868	0.6	19.8	19.8	20.4	0.6

<sup>1</sup> FEET ABOVE CONFLUENCE WITH EEL RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

<sup>3</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM EEL RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		BRANCH OF EEL RIVER



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	34	235	1.9	28.4	28.4	28.8	0.4
B	100	44	351	1.3	28.5	28.5	28.9	0.4
C	1,500	35	224	1.6	28.5	28.5	29.0	0.5
D	2,640	9	60	6.0	31.2	31.2	31.2	0.0
E	2,777	16	124	2.9	31.8	31.8	31.8	0.0
F	3,775	13	118	3.1	31.9	31.9	32.7	0.8

<sup>1</sup> FEET ABOVE FREE STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	CROOKED MEADOW RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	5,600	38	223	6.6	50.3	50.3	50.6	0.3
B	6,780	155	686	2.1	52.1	52.1	53.1	1.0
C	7,200	40	154	7.5	52.5	52.5	53.3	0.8
D	8,080	35	167	6.9	67.0	67.0	67.1	0.1
E	8,435	200	2,169	0.7	67.7	67.7	68.4	0.7
F	10,870	58	358	3.8	68.1	68.1	68.4	0.3
G	12,585	40	354	2.5	75.1	75.1	75.6	0.5
H	13,660	50	464	1.9	75.1	75.1	75.8	0.7
I	14,880	30	248	2.3	76.2	76.2	76.3	0.1
J	15,570	40	284	2.3	76.2	76.2	76.5	0.3
K	17,030	200	783	0.7	76.2	76.2	76.9	0.7
L	18,430	250	1,014	0.6	76.4	76.4	77.1	0.7
M	19,430	55	146	2.3	76.4	76.4	77.1	0.7
N	20,540	160	620	0.5	79.7	79.7	80.4	0.7

<sup>1</sup> FEET ABOVE CONFLUENCE WITH INDIAN HEAD RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		DRINKWATER RIVER



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	27	125	2.5	52.5	52.5	53.5	1.0
B	430	27	115	2.7	53.1	53.1	53.8	0.7
C	535	27	119	2.7	53.2	53.2	54.0	0.8
D	1,150	45	260	1.2	53.6	53.6	54.3	0.7
E	1,252	30	112	2.8	54.2	54.2	54.6	0.4
F	1,950	45	277	1.1	54.3	54.3	54.7	0.4
G	2,064	32	210	1.5	54.4	54.4	54.8	0.4
H	3,130	150	118	2.7	54.5	54.5	55.2	0.7
I	3,200	200	214	1.5	54.7	54.7	55.3	0.6
J	3,670	20	123	2.6	55.2	55.2	56.0	0.8
K	4,220	6	26	12.3	60.0	60.0	60.0	0.0
L	4,291	16	112	2.8	67.7	67.6 <sup>2</sup>	67.6	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH DRINKWATER RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)		DRINKWATER RIVER TRIBUTARY	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	201	28	99	1.1	48.8	48.8	49.8	1.0
B	919	5	14	7.8	49.8	49.8	50.0	0.2
C	966	49	137	0.8	51.1	51.1	51.2	0.1
D	1,668	78	229	0.5	51.2	51.2	51.4	0.2
E	2,988	5	16	7.2	55.1	55.1	55.1	0.0
F	3,105	26	104	1.1	56.0	56.0	56.0	0.0
G	3,844	76	160	0.7	56.1	56.1	56.2	0.1
H	4,784	6	22	5.2	74.4	74.4	74.4	0.0
I	4,932	9	15	7.4	75.1	75.1	75.1	0.0
J	5,349	49	255	0.4	98.8	98.8	98.8	0.0
K	5,475	23	101	1.1	98.8	98.8	98.8	0.0
L	5,993	77	239	0.5	98.9	98.9	99.0	0.1

<sup>1</sup> FEET ABOVE CONFLUENCE WITH PLYMOUTH RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)		EEL RIVER (TOWN OF HINGHAM)	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	9,700	47	160	2.9	9.5 <sup>2</sup>	8.0 <sup>3</sup>	9.0 <sup>3</sup>	1.0
B	9,960	30	102	4.5	9.8	9.6	10.0	0.4
C	10,060	12	43	10.8	10.3	10.3	10.3	0.0
D	10,160	96	487	1.0	12.3	12.3	12.3	0.0
E	10,400	53	239	1.9	12.4	12.4	12.5	0.1
F	10,700	49	187	2.5	12.6	12.6	12.8	0.2
G	10,830	190	332	1.4	24.8	24.8	24.8	0.0
H	10,940	316	1,579	0.3	25.0	25.0	25.0	0.0
I	11,800	330	1,631	0.3	25.0	25.0	25.0	0.0
J	12,700	234	492	0.9	25.0	25.0	25.0	0.0
K	12,810	20	82	5.7	25.0	25.0	25.1	0.1
L	12,950	19	96	4.8	25.8	25.8	25.9	0.1
M	13,200	104	377	1.2	26.4	26.4	26.6	0.2
N	13,800	37	62	7.5	26.9	26.9	27.2	0.3
O	13,920	10	41	11.4	29.2	29.2	29.2	0.0
P	14,000	29	57	8.1	33.6	33.6	33.6	0.0
Q	14,110	7	57	8.2	56.7	56.7	56.7	0.0
R	14,220	366	2,061	0.2	57.4	57.4	57.4	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH PLYMOUTH HARBOR

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

<sup>3</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM PLYMOUTH HARBOR

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)		EEL RIVER (TOWN OF PLYMOUTH)	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	575	232	871	0.7	17.2	17.2	17.3	0.1
B	1,420	370	1,163	0.5	17.5	17.5	17.6	0.1
C	2,420	123	445	1.4	17.6	17.6	17.8	0.2
D	3,420	50	88	6.9	24.3	24.3	24.3	0.0
E	4,430	41	639	0.7	41.8	41.8	41.8	0.0
F	5,530	770	7,845	0.1	41.8	41.8	41.8	0.0
G	6,730	10	80	4.5	41.8	41.8	41.8	0.0
H	7,920	280	821	0.4	44.0	44.0	44.0	0.0
I	8,920	30	49	7.3	44.0	44.0	44.5	0.5
J	9,920	120	311	1.2	48.8	48.8	49.5	0.7
K	10,920	197	409	0.9	50.0	50.0	50.8	0.8
L	12,020	33	126	1.9	57.3	57.3	57.9	0.6
M	12,890	14	57	4.3	62.7	62.7	63.6	0.9
N	14,000	164	470	0.5	65.2	65.2	65.8	0.6
O	15,000	145	407	0.6	65.4	65.4	66.2	0.8
P	15,800	94	261	0.9	65.7	65.7	66.7	1.0

<sup>1</sup> FEET ABOVE THE NEW DRIFTWAY

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		FIRST HERRING BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	640	80	240	2.9	68.4	68.4	68.9	0.5
B	1,800	90	282	2.5	69.4	69.4	69.9	0.5
C	2,550	90	286	2.4	70.1	70.1	70.9	0.8
D	4,400	430	1,370	0.5	70.8	70.8	71.8	1.0
E	5,310	401	1,199	0.5	70.9	70.9	71.9	1.0
F	6,750	230	698	0.7	71.1	71.1	72.1	1.0
G	8,420	*	137	3.8	72.8	72.8	73.4	0.6
H	10,425	*	124	3.5	79.5	79.5	80.0	0.5
I	12,540	*	122	3.5	84.4	84.4	84.8	0.4
J	13,760	*	101	4.3	86.2	86.2	86.9	0.7
K	14,800	*	94	4.6	89.5	89.5	89.5	0.0
L	17,690	*	191	1.9	101.5	101.5	101.5	0.0
M	18,420	*	212	1.7	102.5	102.5	102.6	0.1
N	18,880	50	154	2.3	102.5	102.5	102.7	0.2
O	19,300	*	78	4.6	103.4	103.4	103.5	0.1
P	21,630	*	40	9.0	108.3	108.3	108.3	0.0
Q	22,740	*	87	4.2	115.2	115.2	115.4	0.2
R	23,480	100	411	0.9	118.5	118.5	118.5	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH DRINKWATER RIVER

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		FRENCH STREAM

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	16	*	32	8.3	18.8	18.8	18.8	0.0
B	100	149	1,084	0.2	20.0	20.0	20.0	0.0
C	301	26	122	2.2	21.5	21.5	21.5	0.0
D	760	22	101	2.6	21.7	21.7	21.9	0.2
E	1,214	22	75	3.5	21.9	21.9	22.5	0.6
F	1,404	*	44	6.0	23.5	23.5	23.5	0.0
G	1,637	*	108	2.4	24.0	24.0	24.3	0.3
H	1,837	28	197	1.3	24.1	24.1	24.4	0.3
I	2,397	26	170	1.6	24.1	24.1	24.5	0.4
J	3,918	22	193	1.4	24.2	24.2	24.8	0.6
K	5,776	336	3,261	0.1	24.2	24.2	25.0	0.8
L	7,476	80	382	0.6	24.2	24.2	25.1	0.9
M	8,596	184	697	0.2	24.2	24.2	25.1	0.9
N	9,858	50	131	1.1	24.2	24.2	25.2	1.0
O	10,639	50	108	1.4	24.8	24.8	25.8	1.0
P	11,357	22	27	5.4	27.9	27.9	27.9	0.0
Q	11,558	*	19	7.8	31.5	31.5	31.5	0.0
R	11,648	*	28	5.1	32.9	32.9	33.2	0.3
S	12,038	400	1,695	0.1	41.4	41.4	41.4	0.0
T	14,277	120	145	0.9	41.4	41.4	41.4	0.0
U	15,159	80	119	1.1	42.6	42.6	43.6	1.0
V	15,660	40	50	2.2	45.0	45.0	45.0	0.0
W	15,808	23	154	0.7	52.7	52.7	52.7	0.0
X	16,220	*	51	2.1	52.9	52.9	53.5	0.6
Y	16,421	435	1,530	0.1	52.9	52.9	53.6	0.7

<sup>1</sup> FEET ABOVE DAM

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

PLYMOUTH COUNTY, MA  
(ALL JURISDICTIONS)

FLOODWAY DATA

HALLS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	4,230	*	35	6.0	46.8	46.8	47.3	0.5

<sup>1</sup> FEET ABOVE DAMONS POINT ROAD

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		HANNAH EAMES BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	11,440	111	64	4.3	20.8	20.8	20.8	0.0
B	11,755	65	272	1.0	25.1	25.1	25.1	0.0
C	13,635	58	51	5.4	25.7	25.7	25.7	0.0
D	16,545	80	130	1.7	31.9	31.9	31.9	0.0
E	17,291	9	38	5.7	35.6	35.6	35.6	0.0
F	18,251	175	479	0.5	36.3	36.3	36.3	0.0
G	19,881	35	37	5.9	39.4	39.4	39.4	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH NORTH RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		HERRING BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-3,115	1,643	9,444	0.1	62.6	62.6	63.6	1.0
B	-1,765	1,383	6,072	0.2	62.6	62.6	63.6	1.0
C	-90	1,590	5,685	0.2	62.6	62.6	63.6	1.0
D	1,490	1,500	4,804	0.2	63.3	63.3	63.7	0.4
E	2,910	1,200	3,096	0.3	63.4	63.4	63.7	0.3
F	4,350	900	2,389	0.4	63.5	63.5	63.8	0.3
G	5,880	600	1,641	0.6	63.5	63.5	63.9	0.4
H	7,306	567	781	1.2	63.7	63.7	64.5	0.8
I	8,170	300	1,081	0.9	66.7	66.7	66.8	0.1
J	10,144	100	456	2.1	66.8	66.8	67.3	0.5
K	11,480	100	407	2.3	68.1	68.1	68.9	0.8
L	15,015	100	367	2.6	70.8	70.8	71.8	1.0
M	17,520	100	471	1.9	74.2	74.2	74.6	0.4
N	19,233	100	471	1.9	74.3	74.3	75.3	1.0
O	22,271	100	395	2.2	75.8	75.8	76.7	0.9
P	24,000	100	384	2.3	77.0	77.0	78.0	1.0
Q	24,732	100	404	2.2	78.9	78.9	79.5	0.6

<sup>1</sup> FEET ABOVE MAPLE STREET BRIDGE IN WEST BRIDGEWATER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		HOCKOMOCK RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	250	78	252	2.5	21.2	21.2	22.0	0.8
B	850	75	463	1.4	26.6	26.6	26.6	0.0
C	950	170	643	1.0	26.6	26.6	26.6	0.0
D	1,310	80	221	2.9	26.6	26.6	26.6	0.0
E	1,870	111	496	1.3	28.1	28.1	28.5	0.4
F	2,430	15	82	7.7	28.3	28.3	28.3	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH CAPE COD BAY

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		INDIAN BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	250	27	111	2.8	39.9	38.9 <sup>2</sup>	39.8 <sup>2</sup>	0.9
B	1,180	36	157	2.0	40.1	39.6 <sup>2</sup>	40.5 <sup>2</sup>	0.9
C	2,180	35	48	6.6	41.9	41.9	42.0	0.1
D	2,400	125	372	0.8	46.4	46.4	46.4	0.0
E	3,200	100	408	0.8	46.5	46.5	46.5	0.0
F	4,160	26	45	7.0	46.7	46.7	46.9	0.2
G	5,340	60	217	1.3	53.3	53.3	53.6	0.3
H	6,750	25	127	2.2	53.5	53.5	54.1	0.6
I	7,980	130	273	0.7	53.8	53.8	54.7	0.9
J	8,910	50	102	1.9	54.2	54.2	55.2	1.0
K	10,010	18	68	2.9	57.7	57.7	58.0	0.3
L	11,550	125	274	0.7	58.0	58.0	58.9	0.9
M	12,400	18	43	4.5	59.3	59.3	59.3	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH INDIAN HEAD RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM INDIAN HEAD RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		INDIAN HEAD BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	5,830	100	467	3.9	25.6	25.6	26.6	1.0
B	6,280	60	222	8.2	27.0	27.0	27.5	0.5
C	7,130	50	283	6.4	31.3	31.3	31.6	0.3
D	7,700	179	1,002	1.8	38.5	38.5	38.5	0.0
E	8,690	261	1,120	1.6	38.7	38.7	38.7	0.0
F	9,800	119	634	2.9	39.0	39.0	39.0	0.0
G	11,100	72	465	3.9	39.6	39.6	39.8	0.2
H	12,650	150	752	2.1	40.5	40.5	41.3	0.8
I	13,660	330	1,202	1.3	41.5	41.5	42.5	1.0
J	14,450	50	326	4.8	44.4	44.4	44.9	0.5

<sup>1</sup> FEET ABOVE ELM STREET DAM

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		INDIAN HEAD RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	33	100	9.6	20.4	20.4	20.4	0.0
B	130	46	333	2.9	20.5	20.5	21.0	0.5
C	230	268	2,074	0.5	20.7	20.7	21.2	0.5
D	1,030	143	895	1.1	20.7	20.7	21.2	0.5
E	3,270	200	1,244	0.8	20.8	20.8	21.4	0.6
F	4,310	51	297	3.2	20.9	20.9	21.7	0.8
G	4,650	140	671	1.2	21.7	21.7	22.5	0.8
H	4,850	154	104	7.9	26.9	26.9	26.9	0.0
I	5,010	24	247	3.3	28.1	28.1	28.1	0.0
J	5,130	124	908	0.9	28.2	28.2	28.2	0.0
K	5,930	54	416	2.0	28.3	28.3	28.3	0.0
L	7,680	110	668	1.2	28.3	28.3	28.4	0.1
M	9,060	74	427	1.9	28.5	28.5	28.7	0.2
N	11,300	29	116	6.3	28.7	28.7	29.2	0.5
O	13,060	176	624	1.2	31.1	31.1	31.9	0.8
P	14,780	119	497	1.5	32.5	32.5	33.2	0.7
Q	15,000	76	335	2.2	33.1	33.1	33.9	0.8
R	15,740	162	807	0.8	33.6	33.6	34.4	0.8
S	16,860	138	563	1.2	33.8	33.8	34.5	0.7
T	17,940	108	497	1.3	34.2	34.2	34.9	0.7
U	19,620	74	234	0.5	34.7	34.7	35.5	0.8
V	20,680	52	92	0.8	34.8	34.8	35.5	0.7
W	21,080	51	108	0.6	35.5	35.5	35.7	0.2
X	21,980	30	75	0.9	35.7	35.7	36.0	0.3
Y	23,540	61	122	0.6	35.9	35.9	36.3	0.4
Z	24,840	*	12	5.8	39.7	39.7	39.9	0.2
AA	25,080	49	40	0.6	40.5	40.5	40.9	0.4

<sup>1</sup> FEET ABOVE DAM

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

PLYMOUTH COUNTY, MA  
(ALL JURISDICTIONS)

FLOODWAY DATA

JONES RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	25,360	83	310	0.1	47.1	47.1	47.1	0.0

<sup>1</sup> FEET ABOVE DAM

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		JONES RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	53	155	1.9	33.9	32.5 <sup>2</sup>	33.5 <sup>2</sup>	1.0
B	1,162	90	309	1.0	33.9	33.7 <sup>2</sup>	34.6 <sup>2</sup>	0.9
C	2,360	79	245	1.2	34.5	34.5	35.3	0.8
D	3,041	*	74	4.0	35.1	35.1	36.0	0.9
E	3,268	40	206	1.5	38.7	38.7	38.9	0.2
F	4,150	61	333	0.9	38.7	38.7	39.0	0.3

<sup>1</sup> FEET ABOVE CONFLUENCE WITH JONES RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM JONES RIVER

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		JONES RIVER BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	800	60	315	0.9	79.8	79.8	80.5	0.7
B	1,790	65	320	0.8	79.8	79.8	80.8	1.0
C	2,700	40	112	2.4	83.2	83.2	83.8	0.6
D	2,875	19	69	3.9	83.7	83.7	84.2	0.5
E	3,880	18	58	4.7	85.2	85.2	85.7	0.5
F	5,120	6	33	8.2	92.9	92.9	93.2	0.3

<sup>1</sup> FEET ABOVE CONFLUENCE WITH DRINKWATER RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		LONGWATER BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,560	129	1,412	1.7	29.4	29.4	30.3	0.9
B	6,670	190	1,240	2.0	31.4	31.4	32.1	0.7
C	7,200	268	2,316	1.1	33.2	33.2	33.9	0.7

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		MATFIELD RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-95	*	125	3.9	21.2	21.2	22.2	1.0
B	95	23	111	4.4	22.0	22.0	22.9	0.9
C	1,895	130	334	1.5	23.7	23.7	24.6	0.9
D	3,345	25	70	7.0	25.2	25.2	25.4	0.2
E	5,445	30	162	3.0	26.9	26.9	27.8	0.9
F	6,705	80	321	1.5	27.6	27.6	28.6	1.0
G	8,515	50	220	2.2	28.5	28.5	29.4	0.9
H	10,655	120	468	1.0	29.2	29.2	30.1	0.9
I	11,685	30	123	3.9	30.6	30.6	31.0	0.4
J	13,025	90	434	1.1	32.6	32.6	33.3	0.7
K	15,005	115	544	0.9	32.8	32.8	33.7	0.9
L	16,195	150	549	0.9	32.9	32.9	33.8	0.9
M	17,445	130	427	1.1	33.0	33.0	34.0	1.0
N	19,035	160	413	1.2	33.5	33.5	34.5	1.0
O	20,195	*	120	4.0	34.5	34.5	35.1	0.6
P	22,025	150	416	1.2	38.3	38.3	39.1	0.8
Q	22,895	135	314	1.5	38.8	38.8	39.8	1.0
R	24,065	30	71	1.9	41.5	41.5	42.4	0.9
S	25,055	36	57	2.4	44.6	44.6	44.6	0.0
T	28,105	*	662	0.2	51.8	51.8	51.8	0.0
U	28,995	*	31	4.3	51.8	51.8	51.8	0.0
V	29,985	*	58	2.3	53.1	53.1	53.8	0.7
W	30,805	*	99	0.7	53.4	53.4	54.2	0.8
X	32,645	*	39	1.6	53.7	53.7	54.5	0.8
Y	33,735	*	29	2.2	54.5	54.5	55.0	0.5

<sup>1</sup> FEET ABOVE WOLF ISLAND ROAD

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		MATTAPOISETT RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	28	141	3.4	39.8	39.8	40.8	1.0
B	1,040	56	161	3.0	42.2	42.2	42.6	0.4
C	2,160	41	127	3.7	47.5	47.5	47.5	0.0
D	2,812	15	239	2.7	49.0	49.0	49.1	0.1
E	3,229	26	389	2.2	50.4	50.4	50.6	0.2
F	4,509	56	203	3.7	55.9	55.9	56.9	1.0
G	6,389	64	209	2.6	59.4	59.4	59.9	0.5
H	8,069	19	182	4.1	66.8	66.8	67.5	0.7
I	9,269	87	360	2.0	69.5	69.5	70.5	1.0
J	10,789	50	350	2.2	70.6	70.6	71.6	1.0
K	12,269	12	160	3.0	72.6	72.6	73.4	0.8
L	13,989	57	1,848	0.4	74.6	74.6	75.5	0.9
M	15,069	345	1,715	0.4	74.6	74.6	75.6	1.0
N	16,429	50	234	1.2	77.7	77.7	77.8	0.1
O	17,489	25	117	2.3	77.8	77.8	78.0	0.2
P	17,939	25	118	2.3	77.8	77.8	78.2	0.4
Q	18,189	30	113	1.9	77.9	77.9	78.4	0.5
R	19,279	50	152	1.4	78.7	78.7	79.6	0.9
S	20,029	20	51	4.4	80.0	80.0	80.5	0.5
T	20,560	50	182	1.2	84.4	84.4	84.4	0.0
U	21,269	45	100	2.2	86.1	86.1	87.0	0.9
V	22,069	50	117	1.9	87.4	87.4	88.4	1.0
W	23,149	90	195	1.1	90.2	90.2	91.1	0.9

<sup>1</sup> FEET ABOVE CENTRAL STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		MEADOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	180	12	35	3.0	77.9	77.9	78.4	0.5
B	1,310	10	27	3.9	78.9	78.9	79.3	0.4
C	2,030	20	50	2.1	81.0	81.0	81.7	0.7
D	3,160	25	55	1.9	86.6	86.6	86.6	0.0
E	4,270	9	31	3.4	88.8	88.8	89.5	0.7
F	5,740	8	21	5.1	90.4	90.4	90.8	0.4
G	7,200	39	109	1.0	93.2	93.2	94.1	0.9

<sup>1</sup> FEET ABOVE CONFLUENCE WITH MEADOW BROOK

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		MEADOW BROOK TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	*	58	1.7	24.2	21.3 <sup>2</sup>	22.3 <sup>2</sup>	1.0
B	602	*	31	3.1	24.2	22.5 <sup>2</sup>	22.7 <sup>2</sup>	0.2
C	803	*	47	2.1	24.2	23.8 <sup>2</sup>	23.9 <sup>2</sup>	0.1
D	1,220	*	14	7.0	24.4	24.4	24.4	0.0
E	1,779	*	26	3.2	27.1	27.1	27.7	0.6
F	2,661	*	212	0.4	34.9	34.9	35.9	1.0
G	3,263	*	22	3.8	34.9	34.9	35.9	1.0
H	3,601	*	112	0.8	39.9	39.9	39.9	0.0
I	3,701	*	80	1.1	39.9	39.9	39.9	0.0
J	4,103	*	15	3.9	40.2	40.2	40.2	0.0
K	4,303	193	903	0.1	53.1	53.1	53.1	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH HALLS BROOK

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM HALLS BROOK

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		MILE BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	925	838	2788	0.5	24.9	16.3 <sup>2</sup>	17.3	1.0
B	3079	152	703	1.8	24.9	16.8 <sup>2</sup>	17.6	0.8
C	3635	96	562	2.2	24.9	17.4 <sup>2</sup>	18.3	0.9
D	3977	120	863	1.5	24.9	17.5 <sup>2</sup>	18.5	1.0
E	7414	103	905	1.4	24.9	18.0 <sup>2</sup>	19.0	1.0
F	9872	137	1009	1.2	24.9	18.4 <sup>2</sup>	19.3	0.9
G	12594	180	1182	1.1	24.9	18.8 <sup>2</sup>	19.7	0.9
H	14418	126	784	1.6	24.9	19.2 <sup>2</sup>	19.9	0.7
I	14463	70	300	4.2	24.9	19.1 <sup>2</sup>	19.9	0.8
J	14620	50	377	3.3	24.9	21.3 <sup>2</sup>	21.3	0.0
K	15418	181	1447	0.9	24.9	21.4 <sup>2</sup>	21.5	0.1
L	17345	203	1296	1.0	24.9	21.5 <sup>2</sup>	21.7	0.2
M	18894	137	715	1.7	24.9	21.7 <sup>2</sup>	21.9	0.2
N	20403	58	409	3.0	24.9	22.4 <sup>2</sup>	22.7	0.3
O	20595	55	478	2.6	24.9	24.5 <sup>2</sup>	24.7	0.2
P	21751	154	1391	0.9	24.9	24.7 <sup>2</sup>	25.0	0.3
Q	23107	202	1532	0.8	24.9	24.7 <sup>2</sup>	25.0	0.3
R	24270	243	2363	0.5	24.9	24.7 <sup>2</sup>	25.1	0.4
S	26055	181	1565	0.8	24.9	24.8 <sup>2</sup>	25.1	0.3
T	28600	70	632	1.9	24.9	24.9	25.3	0.4
U	29558	60	478	2.5	25.1	25.1	25.6	0.5
V	29708	57	433	2.8	25.1	25.1	25.7	0.6
W	29929	175	805	1.5	25.7	25.7	26.2	0.5
X	30738	220	1080	1.1	29.2	29.2	29.2	0.0
Y	31024	190	1116	1.1	29.2	29.2	29.2	0.0
Z	31610	180	826	1.4	29.3	29.3	29.3	0.0
AA	34766	180	741	1.5	30.3	30.3	30.6	0.3

<sup>1</sup>FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

<sup>2</sup>ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

**PLYMOUTH COUNTY, MA**  
(ALL JURISDICTIONS)

**FLOODWAY DATA**

**NEMASKET RIVER**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	36596	180	716	1.6	31.1	31.1	31.4	0.3
AC	37552	150	665	1.7	31.5	31.5	31.9	0.4
AD	38321	77	375	3.1	31.9	31.9	32.6	0.7
AE	38570	59	380	3.0	33.4	33.4	34.1	0.7
AF	39126	58	339	3.4	33.8	33.8	34.6	0.8
AG	39309	96	444	2.6	34.5	34.5	35.5	1.0
AH	39410	95	448	2.6	34.6	34.6	35.5	0.9
AI	40992	99	310	3.7	36.9	36.9	37.1	0.2
AJ	42154	53	129	8.9	41.7	41.7	41.8	0.1
AK	42169	91	437	2.6	44.5	44.5	45.4	0.9
AL	42267	90	418	2.7	45.2	45.2	46.2	1.0
AM	42300	77	391	2.9	45.2	45.2	46.2	1.0
AN	42315	41	210	5.4	45.2	45.2	46.1	0.9
AO	42332	42	219	5.2	45.6	45.6	46.4	0.8
AP	42372	42	227	5.0	45.9	45.9	46.6	0.7
AQ	42592	275	1721	0.7	53.3	53.3	53.3	0.0
AR	42752	260	1043	1.1	53.3	53.3	53.3	0.0
AS	44200	87	496	2.3	53.6	53.6	53.7	0.1
AT	45793	49	386	2.7	54.1	54.1	54.5	0.4
AU	46109	67	441	2.4	54.7	54.7	55.0	0.3
AV	47265	250	1375	0.8	54.8	54.8	55.3	0.5
AW	48117	54	402	2.6	54.9	54.9	55.3	0.4
AX	48797	86	566	1.9	55.2	55.2	55.8	0.6
AY	50311	99	1089	1.0	55.2	55.2	56.0	0.8
AZ	50485	87	756	1.4	55.5	55.5	56.2	0.7
BA	52598	194	1257	0.8	55.6	55.6	56.3	0.7
BB	52803	148	1539	0.7	55.9	55.9	56.6	0.7

<sup>1</sup>FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	NEMASKET RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BC	52986	196	1475	0.7	56.0	56.0	56.6	0.6
BD	53285	77	734	1.4	56.2	56.2	56.8	0.6
BE	53976	201	1299	0.8	56.2	56.2	57.0	0.8
BF	56175	450	3005	0.3	56.2	56.2	57.1	0.9
BG	57894	450	2497	0.4	56.3	56.3	57.1	0.8
BH	60116	71	549	1.4	56.4	56.4	57.3	0.9
BI	60417	64	518	1.5	56.8	56.8	57.6	0.8
BJ	61936	270	1721	0.5	56.8	56.8	57.8	1.0
BK	63321	270	1541	0.5	56.8	56.8	57.8	1.0
BL	63487	1434	11986	0.1	56.8	56.8	57.8	1.0

<sup>1</sup>FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

**PLYMOUTH COUNTY, MA**  
(ALL JURISDICTIONS)

**FLOODWAY DATA**

**NEMASKET RIVER**



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	190	40	75	6.8	28.1	24.1 <sup>2</sup>	24.3	0.2
B	2,000	20	95	3.5	28.1	26.0 <sup>2</sup>	26.7	0.7
C	3,100	140	459	0.7	28.4	28.0 <sup>2</sup>	28.6	0.6
D	3,840	170	290	1.1	28.5	28.0 <sup>2</sup>	28.9	0.9

<sup>1</sup> FEET ABOVE CONFLUENCE WITH THE WINNETUXET RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF COINCIDENT FLOW WITH THE WINNETUXET RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		PALMER MILL BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	48	61	6.0	47.9	47.9	47.9	0.0
B	998	50	639	0.6	48.5	48.5	48.5	0.0
C	2,117	34	192	1.9	48.5	48.5	48.5	0.0
D	3,696	71	178	1.7	48.9	48.9	49.0	0.1
E	5,064	175	1,038	0.3	54.7	54.7	55.0	0.3
F	5,164	46	383	0.8	54.7	54.7	55.0	0.3
G	6,463	60	217	1.4	54.8	54.8	55.4	0.6
H	7,223	24	101	3.0	57.6	57.6	57.7	0.1
I	7,323	35	159	1.9	57.6	57.6	57.7	0.1
J	8,274	72	339	0.9	57.7	57.7	58.2	0.5
K	9,425	70	242	1.3	58.0	58.0	58.7	0.7
L	10,523	28	67	4.6	61.5	61.5	61.5	0.0
M	10,623	94	309	0.5	61.9	61.9	61.9	0.0
N	11,590	48	213	0.8	63.5	63.5	63.5	0.0
O	11,690	113	320	1.7	63.5	63.5	63.5	0.0
P	12,593	18	25	3.8	64.0	64.0	65.0	1.0

<sup>1</sup> FEET ABOVE CUSHING POND DAM

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		PLYMOUTH RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-7,530	135	518	1.5	45.9	45.9	46.9	1.0
B	-6,320	129	555	1.4	46.7	46.7	47.5	0.8
C	-4,520	134	488	1.6	47.4	47.4	48.2	0.8
D	-3,000	285	1,278	0.6	47.6	47.6	48.5	0.9
E	-78	72	294	2.5	48.6	48.6	49.5	0.9
F	60	93	455	1.6	49.7	49.7	50.1	0.4
G	2,740	90	394	1.7	50.3	50.3	50.9	0.6
H	5,030	100	334	2.0	50.9	50.9	51.8	0.9
I	5,908	130	802	0.8	51.5	51.5	52.4	0.9
J	8,645	150	680	0.4	51.7	51.7	52.5	0.8
K	9,850	45	134	1.8	51.7	51.7	52.5	0.8
L	11,118	40	119	2.0	52.7	52.7	53.5	0.8
M	11,280	77	392	0.5	56.6	56.6	56.6	0.0
N	14,510	16	49	3.9	56.8	56.8	57.5	0.7
O	15,200	50	126	1.5	58.2	58.2	59.2	1.0
P	15,890	18	38	5.1	60.9	60.9	61.1	0.2

<sup>1</sup> FEET ABOVE MAIN STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		POOR MEADOW BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,020	18	175	4.2	102.4	102.4	102.4	0.0
B	2,620	22	232	3.2	103.8	103.8	104.0	0.2
C	3,050	21	192	3.9	103.9	103.9	104.1	0.2
D	3,290	86	594	1.3	104.1	104.1	104.6	0.5
E	6,190	15	149	4.6	120.4	120.4	121.3	0.9
F	7,600	125	658	2.2	120.9	120.9	121.9	1.0
G	7,975	65	314	3.2	121.2	121.2	122.2	1.0
H	8,395	110	616	2.1	122.3	122.3	123.0	0.7
I	9,200	35	221	3.6	122.4	122.4	123.2	0.8

<sup>1</sup> FEET ABOVE PERKINS STREET BRIDGE

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SALISBURY BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-720	32	195	4.7	60.9	60.9	61.9	1.0
B	-85	30	166	5.6	62.9	62.9	63.4	0.5
C	798	36	237	3.9	65.0	65.0	65.3	0.3
D	1,860	31	253	3.6	65.9	65.9	66.5	0.6
E	3,000	29	249	3.6	66.6	66.6	67.5	0.9
F	4,220	33	287	3.2	67.4	67.4	68.4	1.0
G	5,660	45	346	3.2	70.0	70.0	71.0	1.0
H	8,960	64	344	6.3	70.3	70.3	71.3	1.0
I	9,660	45	293	7.4	72.6	72.6	73.2	0.6
J	11,162	168	689	5.1	76.8	76.8	77.2	0.4
K	11,655	25	318	6.8	78.1	78.1	78.4	0.3
L	12,027	38	452	4.3	79.5	79.5	79.8	0.3
M	12,670	21	282	6.9	81.6	81.6	81.6	0.0
N	12,966	35	606	3.2	82.5	82.5	82.5	0.0
O	13,624	122	150	3.1	83.0	83.0	83.0	0.0
P	14,483	60	853	2.3	83.2	83.2	83.3	0.1
Q	15,281	44	567	3.5	83.2	83.2	83.5	0.3
R	15,580	79	810	2.4	83.3	83.3	83.9	0.6
S	16,422	22	349	5.6	83.4	83.4	84.1	0.7
T	17,422	224	1,260	1.6	83.5	83.5	84.4	0.9
U	18,522	140	1,066	1.8	83.6	83.6	84.5	0.9
V	19,516	115	1,094	1.2	86.6	86.6	87.5	0.9

<sup>1</sup> FEET ABOVE BELMONT STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SALISBURY PLAIN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-671	79	983	1.8	32.8	32.8	33.8	1.0
B	-75	104	847	1.7	32.9	32.9	33.9	1.0
C	-25	79	573	2.5	38.8	38.8	38.9	0.1
D	1,003	90	1,186	1.6	40.0	40.0	40.1	0.1

<sup>1</sup> FEET FROM PLYMOUTH STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	SATUCKET RIVER (LOWER REACH)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	107	347	5.7	39.6	39.6	40.6	1.0
B	1,840	254	971	2.6	41.9	41.9	42.9	1.0
C	2,720	1,245	4,533	0.6	42.1	42.1	43.1	1.0
D	4,320	1,133	2,893	1.0	42.2	42.2	43.2	1.0
E	4,880	253	793	0.4	42.2	42.2	43.2	1.0
F	6,445	130	284	0.8	42.3	42.3	43.3	1.0

<sup>1</sup> FEET ABOVE CONFLUENCE OF BLACK BROOK

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SATUCKET RIVER (UPPER REACH)



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,100	54	192	3.2	10.3 <sup>2</sup>	10.2	11.2	1.0
B	2,298	39	166	0.7	20.1	20.1	21.1	1.0
C	2,457	122	510	0.2	21.9	21.9	22.1	0.2
D	3,455	68	180	0.6	22.0	22.0	22.2	0.2
E	4,453	26	50	2.2	22.4	22.4	23.0	0.6
F	5,287	202	492	0.2	24.4	24.4	24.8	0.4
G	6,285	103	296	0.4	24.4	24.4	24.9	0.5
H	7,864	100	625	0.4	31.0	31.0	31.0	0.0
I	8,862	115	586	0.4	31.0	31.0	31.1	0.1
J	9,860	199	723	0.3	31.0	31.0	31.2	0.2
K	10,562	96	494	0.3	32.7	32.7	32.7	0.0

<sup>1</sup> FEET ABOVE FRONT STREET

<sup>2</sup> ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SATUIT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	518	60	285	1.2	22.1	18.9 <sup>2</sup>	19.8	0.9
B	4,236	29	52	4.7	22.1	20.2 <sup>2</sup>	20.8	0.6
C	4,404	294	1,621	0.1	25.1	25.1	25.1	0.0
D	9,180	15	69	3.5	28.3	28.3	28.9	0.6

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SAWMILL BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	50	31	164	2.3	8.1	3.9 <sup>2</sup>	4.9 <sup>2</sup>	1.0
B	720	48	193	1.9	8.1	4.4 <sup>2</sup>	5.2 <sup>2</sup>	0.8
C	820	48	211	1.8	8.1	5.0 <sup>2</sup>	5.6 <sup>2</sup>	0.6
D	1,090	24	89	4.2	8.1	5.2 <sup>2</sup>	5.8 <sup>2</sup>	0.6
E	1,390	83	259	1.4	8.1	6.4 <sup>2</sup>	7.1 <sup>2</sup>	0.7
F	1,500	205	1,411	0.3	11.7	11.7	12.0	0.3
G	1,850	240	1,452	0.3	11.7	11.7	12.0	0.3
H	2,270	109	519	0.7	11.7	11.7	12.0	0.3
I	2,385	120	557	0.7	11.7	11.7	12.0	0.3
J	2,490	200	947	0.4	11.7	11.7	12.0	0.3
K	2,800	350	1,006	0.4	11.7	11.7	12.0	0.3
L	3,200	120	342	1.1	11.7	11.7	12.0	0.3
M	3,600	28	62	5.9	11.9	11.9	12.2	0.3
N	4,320	30	64	4.9	17.8	17.8	18.1	0.3
O	4,575	285	1,657	0.2	27.9	27.9	28.1	0.2
P	4,800	85	374	0.8	27.9	27.9	28.1	0.2
Q	5,110	16	68	4.5	27.9	27.9	28.1	0.2
R	5,265	14	58	5.4	29.3	29.3	29.3	0.0
S	5,410	45	158	2.0	31.3	31.3	32.2	0.9
T	5,700	20	62	5.0	31.7	31.7	32.6	0.9

<sup>1</sup> FEET ABOVE CONFLUENCE WITH NORTH RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM MASSACHUSETTS BAY

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SECOND HERRING BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	0	330	577	1.1	63.8	63.8	64.8	1.0
B	1,320	240	342	1.6	65.5	65.5	66.4	0.9
C	2,710	12	51	10.3	68.2	68.2	68.5	0.3
D	2,840	26	152	3.5	70.4	70.4	70.8	0.4
E	3,220	22	144	3.7	70.4	70.4	70.8	0.4
F	3,590	83	68	7.8	71.6	71.6	71.6	0.0
G	6,020	27	223	2.2	77.9	77.9	78.4	0.5
H	6,980	30	217	2.3	78.1	78.1	78.9	0.8
I-AC	*	*	*	*	*	*	*	*

<sup>1</sup> FEET ABOVE CONFLUENCE OF SHUMATUSCACANT TRIBUTARY

\* DATA NOT AVAILABLE

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SHUMATUSCACANT RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	140	15	54	2.6	64.0	63.8 <sup>2</sup>	64.7 <sup>2</sup>	0.9
B	2,480	100	240	0.6	65.6	65.6	66.2	0.6
C	3,350	10	32	4.3	65.8	65.8	66.7	0.9
D	3,680	18	35	4.1	70.3	70.3	70.3	0.0
E	4,000	15	38	3.7	72.0	72.0	72.2	0.2
F	4,400	15	37	3.8	73.8	73.8	74.3	0.5

<sup>1</sup> FEET ABOVE CONFLUENCE WITH SHUMATUSCACANT RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM SHUMATUSCACANT RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	SHUMATUSCACANT TRIBUTARY

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	30	*	43	4.3	11.1	11.1	11.1	0.0
B	130	*	48	3.9	11.4	11.4	11.4	0.0
C	440	*	46	1.8	11.4	11.4	12.3	0.9
D	600	*	58	1.4	12.1	12.1	13.0	0.9
E	780	*	52	3.6	26.7	26.7	26.7	0.0
F	880	217	2,572	0.1	26.8	26.8	26.8	0.0
G	2,110	246	1,358	0.1	26.8	26.8	26.8	0.0
H	2,980	*	46	4.1	28.1	28.1	28.5	0.4
I	4,200	*	29	6.5	43.6	43.6	43.6	0.0
J	4,780	*	29	6.5	51.7	51.7	52.5	0.8
K	5,030	*	18	10.2	54.5	54.5	54.5	0.0
L	5,270	*	27	7.0	57.3	57.3	57.3	0.0
M	5,370	*	28	6.8	58.3	58.3	58.3	0.0

<sup>1</sup> FEET ABOVE STATE ROUTE 3A

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SMELT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	300	41	159	1.7	22.3	22.3	23.3	1.0
B	1,880	162	648	0.3	30.2	30.2	30.5	0.3
C	3,580	39	73	2.9	31.9	31.9	31.9	0.0
D	4,700	40	65	3.3	35.6	35.6	35.6	0.0
E	6,340	39	78	2.5	42.7	42.7	42.8	0.1
F	7,600	16	41	3.0	52.2	52.2	53.2	1.0
G	9,010	16	48	2.5	57.4	57.4	58.4	1.0
H	10,240	28	50	2.4	61.0	61.0	61.5	0.5

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SNOWS BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,664	29	119	2.1	29.7	28.1 <sup>2</sup>	29.1 <sup>2</sup>	1.0
B	2,611	206	772	0.3	29.7	29.6 <sup>2</sup>	29.8 <sup>2</sup>	0.2
C	3,533	19	33	7.6	29.7	29.6 <sup>2</sup>	29.8 <sup>2</sup>	0.2
D	4,025	395	417	0.6	33.6	33.6	33.7	0.1
E	4,941	378	669	0.4	33.7	33.7	33.8	0.1
F	6,003	18	33	7.7	34.4	34.4	34.4	0.0
G	7,341	202	519	0.4	40.2	40.2	40.2	0.0
H	8,791	55	44	4.3	40.4	40.4	40.4	0.0
I	9,880	49	120	1.3	49.9	49.9	49.9	0.0
J	13,510	29	30	3.9	53.9	53.9	53.9	0.0
K	14,908	19	54	2.2	56.5	56.5	56.7	0.2

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TOWN RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TOWN RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		SOUTH BROOK





FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,085	17	51	3.7	81.3	81.3	81.9	0.6
B	2,685	46	123	1.4	102.1	102.1	102.6	0.5
C	4,190	15	42	3.3	115.9	115.9	116.0	0.1
D	5,310	421	862	0.2	121.9	121.9	122.0	0.1
E	7,860	386	1,862	0.0	126.1	126.1	126.7	0.6

<sup>1</sup> FEET ABOVE WALNUT STREET

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		STREAM RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
BD <sup>2</sup>	57814	512	4583	1.3	18.4	18.4	19.2	0.8
BE	59146	356	3217	1.8	18.5	18.5	19.4	0.9
BF	60313	300	2776	2.1	18.6	18.6	19.6	1.0
BG	62424	882	7855	0.7	18.9	18.9	19.9	1.0
BH	64419	282	2663	2.2	19.1	19.1	20.0	0.9
BI	65921	222	2626	2.2	19.3	19.3	20.3	1.0
BJ	66257	141	1941	3.0	19.6	19.6	20.4	0.8
BK	67190	211	2307	2.5	19.7	19.7	20.7	1.0
BL	68837	546	3160	1.9	20.1	20.1	21.0	0.9
BM	70873	810	6820	0.9	20.4	20.4	21.4	1.0
BN	72473	305	3190	1.8	20.6	20.6	21.5	0.9
BO	72693	255	2559	2.3	21.0	21.0	21.9	0.9
BP	74464	341	2877	2.0	21.4	21.4	22.3	0.9
BQ	75306	156	2219	2.5	21.6	21.6	22.4	0.8
BR	75535	519	4112	1.4	21.9	21.9	22.8	0.9
BS	76591	157	2157	2.6	22.0	22.0	22.9	0.9
BT	77993	193	2395	2.3	22.2	22.2	23.1	0.9
BU	79104	312	3595	1.6	22.3	22.3	23.3	1.0
BV	81082	838	5739	1.0	22.5	22.5	23.5	1.0
BW	82380	808	6334	0.9	22.6	22.6	23.6	1.0
BX	82693	415	4381	1.2	22.8	22.8	23.8	1.0
BY	83790	359	3909	1.4	22.9	22.9	23.9	1.0
BZ	85115	618	6336	0.9	23.0	23.0	24.0	1.0
CA	85437	224	3544	1.5	24.3	24.3	24.9	0.6
CB	87228	160	1843	2.9	24.4	24.4	25.2	0.8
CC	88254	507	5139	1.1	24.6	24.6	25.6	1.0
CD	91271	221	2585	1.9	25.1	25.1	26.0	0.9

<sup>1</sup>FEET ABOVE TAUNTON/BERKLEY CORPORATE LIMIT

<sup>2</sup>CROSS SECTIONS A-BC IN FLOODWAY DATA TABLE FOR BRISTOL COUNTY, MASSACHUSETTS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	TAUNTON RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
CE	91551	861	8297	0.6	25.4	25.4	26.4	1.0
CF	93195	783	6516	0.7	25.5	25.5	26.4	0.9
CG	94572	286	4781	1.0	25.5	25.5	26.5	1.0
CH	94853	623	6681	0.8	25.9	25.9	26.9	1.0
CI	96411	476	5024	1.0	26.0	26.0	27.0	1.0
CJ	98106	549	5651	0.9	26.1	26.1	27.1	1.0
CK	99194	672	6560	0.7	26.2	26.2	27.2	1.0
CL	100260	748	8362	0.6	26.2	26.2	27.2	1.0
CM	102175	1421	12912	0.4	26.3	26.3	27.3	1.0
CN	103799	1238	11539	0.4	26.3	26.3	27.3	1.0
CO	105227	969	10219	0.5	26.3	26.3	27.3	1.0
CP	107452	614	8149	0.6	26.4	26.4	27.4	1.0
CQ	107578	793	5231	0.9	26.4	26.4	27.4	1.0
CR	107644	625	6322	0.8	26.4	26.4	27.4	1.0
CS	109211	681	6645	0.7	26.5	26.5	27.5	1.0
CT	109992	1134	9945	0.5	26.5	26.5	27.5	1.0
CU	111998	495	3928	1.1	26.7	26.7	27.6	0.9
CV	113455	677	5104	0.8	26.9	26.9	27.8	0.9
CW	114748	529	4356	1.1	27.0	27.0	27.9	0.9
CX	114925	265	3098	1.4	27.4	27.4	28.3	0.9
CY	116103	71	1106	3.8	27.6	27.6	28.5	0.9
CZ	117323	396	3841	1.1	28.0	28.0	28.9	0.9
DA	118775	423	3556	1.2	28.2	28.2	29.1	0.9
DB	120044	305	3565	1.2	28.3	28.3	29.2	0.9
DC	121515	822	8078	0.5	28.4	28.4	29.4	1.0
DD	122283	585	5448	0.8	28.5	28.5	29.4	0.9
DE	125287	742	7069	0.6	28.7	28.7	29.6	0.9

<sup>1</sup>FEET ABOVE TAUNTON/BERKLEY CORPORATE LIMIT

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

**PLYMOUTH COUNTY, MA**  
(ALL JURISDICTIONS)

**FLOODWAY DATA**

**TAUNTON RIVER**

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER-SURFACE ELEVATION (FEET NAVD88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
DF	126369	390	3017	1.4	28.7	28.7	29.7	1.0
DG	127857	280	3309	1.3	28.9	28.9	29.9	1.0
DH	128188	141	1540	2.8	29.1	29.1	30.0	0.9
DI	128409	215	2379	1.8	29.6	29.6	30.5	0.9
DJ <sup>2</sup>	129231	101	2107	1.7	29.4	29.4	30.3	0.9

<sup>1</sup>FEET ABOVE TAUNTON/BERKLEY CORPORATE LIMIT

<sup>2</sup>CROSS-SECTION CORRESPONDS TO AV (STATION 70464) IN SUPERSEDED FLOODWAY DATA TABLE

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	TAUNTON RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	42	33	154	4.1	10.0	10.0	11.0	1.0
B	438	42	200	2.6	11.0	11.0	12.0	1.0
C	739	44	88	7.5	12.0	12.0	12.3	0.3
D	1,267	45	558	0.9	15.6	15.6	16.1	0.5
E	1,468	44	313	1.8	16.6	16.6	16.6	0.0
F	1,500	140	306	1.6	16.6	16.6	16.8	0.2
G	1,880	134	267	2.0	16.6	16.6	16.8	0.2
H	1,922	164	785	0.8	16.7	16.7	16.9	0.2
I	2,281	196	540	1.2	16.7	16.7	16.9	0.2
J	2,492	228	1,737	0.1	16.7	16.7	16.9	0.2
K	2,814	270	1,709	0.1	16.7	16.7	16.9	0.2
L	3,004	430	733	0.4	16.7	16.7	17.0	0.3
M	3,316	197	374	0.5	16.8	16.8	17.0	0.2
N	3,712	4	570	0.9	18.9	18.9	18.9	0.0
O	3,897	3	550	1.0	19.1	19.1	19.1	0.0
P	4,097	3	180	4.0	20.3	20.3	20.3	0.0
Q	4,636	12	26	1.2	21.6	21.6	21.7	0.1

<sup>1</sup> FEET ABOVE CULVERT TO HINGAM HARBOR

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	TOWN BROOK (TOWN OF HINGHAM)

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,250	16	27	7.5	10.8 <sup>2</sup>	10.8	10.8	0.0
B	1,600	31	81	2.5	13.6 <sup>2</sup>	13.6	13.6	0.0
C	2,250	12	24	8.5	22.0	22.0	22.0	0.0
D	2,350	33	70	2.9	23.4	23.4	23.4	0.0
E	2,550	12	41	4.9	33.9	33.9	33.9	0.0
F	2,670	8	22	8.5	35.3	35.3	35.8	0.5
G	2,800	8	108	1.7	50.4	50.4	50.5	0.1
H	2,900	186	1,116	0.2	50.4	50.4	50.5	0.1
I	3,850	80	368	0.5	50.5	50.5	50.6	0.1
J	4,400	3	16	9.4	59.3	59.3	59.3	0.0
K	4,500	91	479	0.3	59.3	59.3	59.4	0.1
L	4,840	7	21	7.2	66.5	66.5	66.5	0.0
M	4,950	118	410	0.4	67.4	67.4	67.4	0.0
N	5,580	10	20	7.7	70.1	70.1	70.1	0.0
O	5,700	22	102	1.4	71.3	71.3	71.3	0.0
P	5,800	15	48	3.1	78.3	78.3	78.3	0.0
Q	5,900	220	679	0.2	78.5	78.5	78.5	0.0
R	6,350	13	15	10.0	78.5	78.5	78.5	0.0
S	6,450	24	88	1.6	80.3	80.3	80.4	0.1
T	6,600	15	80	1.8	80.3	80.3	80.4	0.1
U	6,750	152	483	0.3	80.4	80.4	80.5	0.1
V	7,150	510	2,233	0.1	80.4	80.4	80.5	0.1
W	7,950	6	18	8.0	80.4	80.4	80.5	0.1
X	8,050	7	22	6.3	81.1	81.1	81.2	0.1
Y	8,150	111	339	0.4	82.0	82.0	82.1	0.1
Z	8,500	30	106	1.3	82.0	82.0	82.1	0.1
AA	8,950	20	80	1.7	82.1	82.1	82.3	0.2

<sup>1</sup> FEET ABOVE CONFLUENCE WITH PLYMOUTH HARBOR

<sup>2</sup> ELEVATIONS COMPUTED WITHOUT CONSIDERATION OF WAVE EFFECTS; PLEASE REFER TO THE ASSOCIATED DFIRM PANEL FOR BASE FLOOD ELEVATIONS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	PLYMOUTH COUNTY, MA			
	(ALL JURISDICTIONS)		TOWN BROOK (TOWN OF PLYMOUTH)	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	9,050	105	352	0.4	82.2	82.2	82.4	0.2

<sup>1</sup> FEET ABOVE CONFLUENCE WITH PLYMOUTH HARBOR

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY	FLOODWAY DATA
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	TOWN BROOK (TOWN OF PLYMOUTH)



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	720	455	5,621	0.4	29.4	29.4	30.3	0.9
B	3,420	60	790	2.5	29.4	29.4	30.3	0.9
C	6,619	292	1,634	1.2	30.1	30.1	31.0	0.9
D	8,169	116	1,250	1.5	30.5	30.5	31.4	0.9
E	10,649	659	5,109	0.4	30.6	30.6	31.5	0.9
F	12,629	51	436	4.4	30.6	30.6	31.5	0.9
G	13,559	669	3,466	0.5	30.9	30.9	31.9	1.0
H	16,700	62	612	3.1	31.2	31.2	32.0	0.8
I	17,130	54	522	3.6	32.4	32.4	32.9	0.5
J	18,000	161	1,253	1.5	32.9	32.9	33.6	0.7
K	18,340	48	466	4.0	33.4	33.4	33.9	0.5
L	20,785	100	856	2.2	36.4	36.4	36.8	0.4
M	21,420	45	313	6.0	38.8	38.8	39.4	0.6
N	21,548	80	777	2.4	45.1	45.1	45.7	0.6
O	21,795	90	852	2.2	46.8	46.8	47.3	0.5
P	22,870	105	1,096	1.7	46.9	46.9	47.4	0.5
Q	23,120	333	2,333	0.8	48.2	48.2	49.2	1.0
R	25,390	590	5,626	0.3	48.2	48.2	49.2	1.0
S	26,970	720	3,498	0.5	48.2	48.2	49.2	1.0
T	28,550	259	2,673	0.7	48.3	48.3	49.3	1.0
U	30,680	263	1,602	1.1	48.5	48.5	49.5	1.0
V	32,100	487	2,442	0.7	48.7	48.7	49.7	1.0
W	33,120	76	535	3.4	48.9	48.9	49.8	0.9
X	35,251	156	558	3.2	56.8	56.8	56.8	0.0
Y	36,001	69	459	3.9	58.1	58.1	58.2	0.1
Z	37,095	105	759	2.3	60.9	60.9	61.1	0.2
AA	38,224	56	722	2.5	62.2	62.2	62.4	0.2

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		TOWN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
AB	39,904	50	643	2.8	62.3	62.3	62.8	0.5
AC	42,576	560	3,178	0.5	62.3	62.3	63.3	1.0
AD	45,422	2,845	12,322	0.1	62.3	62.3	63.3	1.0
AE	47,478	1,712	4,767	0.3	62.3	62.3	63.3	1.0
AF	48,891	1,555	5,960	0.3	62.4	62.4	63.4	1.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		TOWN RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	100	*	51	2.5	70.6	67.4 <sup>2</sup>	68.1 <sup>2</sup>	0.7
B	600	55	150	0.9	70.6	70.6 <sup>2</sup>	71.0 <sup>2</sup>	0.4
C	1,690	55	134	1.0	70.8	70.8	71.5	0.7
D	2,330	*	39	8.9	76.6	76.6	77.5	0.9

<sup>1</sup> FEET ABOVE CONFLUENCE WITH FRENCH STREAM

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM FRENCH STREAM

\* FLOODWAY COINCIDENT WITH CHANNEL BANKS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		TRIBUTARY A

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,300	315	1,782	0.1	74.6	74.6	75.6	1.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH MEADOW BROOK

TABLE 15

FEDERAL EMERGENCY MANAGEMENT AGENCY

PLYMOUTH COUNTY, MA  
(ALL JURISDICTIONS)

FLOODWAY DATA

TRIBUTARY TO MEADOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	472	20	229	5.3	89.0	89.0	89.6	0.6
B	2,442	18	190	6.4	92.7	92.7	92.7	0.0
C	3,275	34	338	3.6	93.9	93.9	93.9	0.0
D	4,790	16	150	8.1	94.1	94.1	94.4	0.3
E	8,060	260	2,278	0.6	96.4	96.4	97.1	0.7

<sup>1</sup> FEET ABOVE CONFLUENCE WITH SALISBURY BROOK

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		TROUT BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	359	20	28	6.6	10.8	8.4 <sup>3</sup>	8.4	0.0
B	491	44	175	1.3	10.8	9.2 <sup>3</sup>	9.2	0.0
C	760	20	76	7.1	17.4	17.4	17.4	0.0
D	5,512	880 / 150 <sup>2</sup>	5,550	0.1	34.7	34.7	35.1	0.4
E	6,030	102	410	0.5	34.7	34.7	35.1	0.4
F	6,130	58	266	0.7	34.8	34.8	35.2	0.4
G	6,352	142	1,564	0.1	38.1	38.1	38.2	0.1

<sup>1</sup> FEET ABOVE CONFLUENCE WITH WEIR RIVER

<sup>2</sup> WIDTH/WIDTH WITHIN PLYMOUTH COUNTY

<sup>3</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM WEIR RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		TURKEY HILL RUN

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	106	371	1,408	0.6	14.9	14.9	14.9	0.0
B	744	13	74	11.2	14.9	14.9	14.9	0.0
C	1,584	18	99	8.5	18.8	18.8	18.8	0.0
D	1,684	63	336	2.5	19.8	19.8	19.8	0.0
E	1,774	36	278	3.0	20.9	20.9	20.9	0.0
F	1,954	41	310	2.7	21.0	21.0	21.0	0.0
G	2,086	48	151	5.5	21.7	21.7	21.7	0.0
H	2,365	25	234	3.6	22.7	22.7	23.5	0.8
I	2,466	53	383	2.2	22.9	22.9	23.7	0.8
J	3,986	130	750	1.1	23.4	23.4	24.2	0.8
K	5,739	50	411	2.0	23.7	23.7	24.6	0.9
L	6,774	22	214	3.9	25.5	25.5	26.4	0.9
M	6,875	52	477	1.8	25.8	25.8	26.6	0.8
N	7,973	171	1,177	0.7	25.9	25.9	26.8	0.9
O	9,071	215	1,477	0.6	26.0	26.0	26.9	0.9
P	9,583	130	930	0.6	26.0	26.0	26.9	0.9
Q	10,386	170	998	0.5	26.0	26.0	26.9	0.9
R	11,621	30	212	2.5	27.2	27.2	27.5	0.3
S	11,727	116	788	0.7	27.2	27.2	27.8	0.6
T	12,825	413	2,923	0.2	27.2	27.2	27.9	0.7

<sup>1</sup> FEET ABOVE FOUNDRY POND DAM

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		WEIR RIVER

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,560	25	147	2.8	62.2	57.8 <sup>2</sup>	58.8 <sup>2</sup>	1.0
B	3,937	24	85	4.9	62.2	60.0 <sup>2</sup>	60.7 <sup>2</sup>	0.7
C	4,063	48	205	2.0	64.3	64.3	64.3	0.0
D	7,428	39	176	2.2	68.7	68.7	68.7	0.0
E	9,004	299	530	0.7	69.6	69.6	70.0	0.4
F	10,432	33	95	4.0	73.8	73.8	73.8	0.0
G	10,567	79	515	0.7	79.1	79.1	79.2	0.1
H	16,848	32	163	2.2	84.0	84.0	84.8	0.8
I	19,029	840	1,848	0.2	90.4	90.4	90.6	0.2
J	19,929	130	519	0.4	90.4	90.4	90.6	0.2
K	21,129	120	302	0.4	90.4	90.4	90.7	0.3
L	22,999	19	49	2.1	95.2	95.2	95.7	0.5
M	24,194	21	19	5.4	101.4	101.4	101.4	0.0

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TOWN RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TOWN RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		WEST MEADOW BROOK



FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	-5,700	60	335	3.5	62.9	62.9	63.9	1.0
B	-3,360	90	600	1.9	64.4	64.4	65.1	0.7
C	-100	41	425	2.7	66.1	66.1	66.8	0.7
D	450	315	1,540	0.8	66.4	66.4	67.3	0.9
E	4,380	570	2,260	0.5	66.6	66.6	67.6	1.0
F	7,380	300	1,015	0.9	66.8	66.8	67.8	1.0
G	10,130	185	600	1.5	67.5	67.5	68.2	0.7
H	10,950	183 <sup>2</sup>	1,065	0.8	67.9	67.9	68.5	0.6
I	12,620	36 <sup>2</sup>	340	2.6	70.2	70.2	70.8	0.6
J	17,350	270 <sup>2</sup>	1,035	0.9	70.9	70.9	71.9	1.0
K	20,680	32 <sup>2</sup>	210	3.3	72.0	72.0	72.7	0.7
L	23,120	74 <sup>2</sup>	355	2.0	73.5	73.5	74.5	1.0
M	27,030	474	990	0.7	74.2	74.2	75.1	0.9
N	31,180	30	195	3.5	76.2	76.2	76.8	0.6
O	32,400	105	465	1.5	76.5	76.5	77.4	0.9

<sup>1</sup> FEET ABOVE TREMONT STREET

<sup>2</sup> THIS WIDTH EXTENDS BEYOND CORPORATE LIMITS

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA	
		WEWEANTIC RIVER	

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	1,245	88	143	1.1	48.7	46.5 <sup>2</sup>	47.5 <sup>2</sup>	1.0
B	2,360	30	144	0.9	50.1	50.1	50.6	0.5
C	3,080	9	28	4.9	55.4	55.4	56.0	0.6
D	3,735	71	131	1.0	57.7	57.7	58.6	0.9
E	3,968	7	39	3.5	60.4	60.4	61.1	0.7
F	4,961	11	83	1.6	63.2	63.2	64.0	0.8

<sup>1</sup> FEET ABOVE CONFLUENCE WITH TOWN RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF BACKWATER EFFECTS FROM TOWN RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)	FLOODWAY DATA
		WILLOW BROOK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD 88)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
A	2,120	50	269	6.4	26.3	19.0 <sup>2</sup>	19.6	0.6
B	4,530	80	635	2.7	26.3	21.6 <sup>2</sup>	22.6	1.0
C	6,780	300	2,277	0.8	26.5	22.0 <sup>2</sup>	23.0	1.0
D	9,200	620	3,710	0.4	26.5	22.1 <sup>2</sup>	23.1	1.0
E	13,200	300	1,599	1.0	26.6	22.6 <sup>2</sup>	23.5	0.9
F	16,400	600	3,035	0.5	26.7	22.9 <sup>2</sup>	23.8	0.9
G	22,280	325	1,515	1.0	26.7	23.5 <sup>2</sup>	24.5	1.0
H	27,380	320	1,530	1.0	26.9	24.7 <sup>2</sup>	25.6	0.9
I	28,670	180	589	2.5	26.9	25.2 <sup>2</sup>	26.1	0.9
J	29,970	120	617	1.6	28.2	27.5 <sup>2</sup>	28.4	0.9
K	30,760	350	2,158	0.5	28.5	28.2 <sup>2</sup>	28.9	0.7
L	34,810	210	707	1.4	28.7	28.4 <sup>2</sup>	29.1	0.7
M	37,180	310	1,085	0.9	29.1	29.0 <sup>2</sup>	29.9	0.9
N	39,740	350	1,002	1.0	29.9	29.9	30.8	0.9
O	43,600	830	698	1.4	32.5	32.5	33.4	0.9
P	47,000	530	916	0.8	36.4	36.4	37.4	1.0
Q	49,950	150	401	1.5	39.6	39.6	39.8	0.2
R	53,540	24	126	5.6	67.0	67.0	67.3	0.3
S	55,060	60	207	3.4	72.4	72.4	72.5	0.1
T	57,170	200	691	1.0	74.1	74.1	74.7	0.6
U	59,700	280	798	0.9	75.0	75.0	75.9	0.9

<sup>1</sup> FEET ABOVE CONFLUENCE WITH THE TAUNTON RIVER

<sup>2</sup> ELEVATION COMPUTED WITHOUT CONSIDERATION OF COINCIDENT FLOW WITH THE TAUNTON RIVER

TABLE 15	FEDERAL EMERGENCY MANAGEMENT AGENCY		FLOODWAY DATA	
	PLYMOUTH COUNTY, MA			
	(ALL JURISDICTIONS)		WINNETUXET RIVER	

## 5.0 INSURANCE APPLICATION

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

### Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

### Zone AE

Zone AE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by detailed methods. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

### Zone AH

Zone AH is the flood insurance rate zone that corresponds to the areas of 1-percent-annual-chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot base flood elevations derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

### Zone AO

Zone AO is the flood insurance rate zone that corresponds to areas of 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the detailed hydraulic analyses are shown within this zone.

### Zone VE

Zone VE is the flood insurance rate zone that corresponds to the 1-percent-annual-chance coastal floodplains that have additional hazards associated with storm waves. Whole-foot BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone.

### Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 square mile (sq. mi.), and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

## **6.0 FLOOD INSURANCE RATE MAP**

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Plymouth County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the county identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Floodway Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 16, “Community Map History.”

COMMUNITY NAME		INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Abington, Town of		August 2, 1974	October 29, 1976	September 30, 1977	June 2, 1993
Bridgewater, Town of		July 19, 1974	September 24, 1976	May 17, 1982	September 8, 1999
Brockton, City of		June 28, 1974	June 11, 1976	March 1, 1979	December 26, 1980
Carver, Town of		June 28, 1974	March 4, 1977	July 19, 1982	None
Duxbury, Town of		August 30, 1974	None	May 2, 1977	May 15, 1986 July 2, 1992 May 17, 2005
East Bridgewater, Town of		September 6, 1974	October 22, 1976	July 2, 1981	None
Halifax, Town of		July 26, 1974	October 29, 1976	July 5, 1982	None
Hanover, Town of		July 26, 1974	August 23, 1977	December 15, 1982	None
Hanson, Town of		November 8, 1974	None	January 20, 1982	December 18, 1986
Hingham, Town of		September 6, 1974	October 15, 1976	June 3, 1986	None
Hull, Town of		December 10, 1976	February 22, 1980	May 2, 1983	July 2, 1992
Kingston, Town of		June 28, 1974	October 29, 1976	August 5, 1985	July 2, 1992
TABLE 16	FEDERAL EMERGENCY MANAGEMENT AGENCY			COMMUNITY MAP HISTORY	
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)				

COMMUNITY NAME		INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Lakeville, Town of		September 6, 1974	August 20, 1976	June 4, 1980	May 15, 1984
Marion, Town of		April 6, 1973	None	April 6, 1973	July 1, 1974 January 2, 1976 March 15, 1982 October 1, 1983 February 17, 1988 July 15, 1992
Marshfield, Town of		August 30, 1974	None	October 14, 1977	October 1, 1983 July 3, 1986 July 2, 1992 June 16, 2006
Mattapoisett, Town of		March 16, 1973	None	March 16, 1973	June 1, 1974 January 9, 1976 June 1, 1982 October 1, 1983 July 2, 1987 July 15, 1992 December 15, 1994 September 30, 1995
Middleborough, Town of		November 1, 1974	March 4, 1977	September 16, 1981	August 1, 1983
TABLE 16	FEDERAL EMERGENCY MANAGEMENT AGENCY		COMMUNITY MAP HISTORY		
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)				

COMMUNITY NAME		INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Norwell, Town of		August 16, 1974	October 22, 1976	July 19, 1982	None
Pembroke, Town of		July 26, 1974	September 3, 1976	November 15, 1979	February 19, 1982
Plymouth, Town of		June 28, 1974	May 24, 1977 October 1, 1983	July 17, 1986	July 2, 1992 December 19, 2006
Plympton, Town of		June 28, 1974	May 24, 1977	July 5, 1982	None
Rochester, Town of		July 19, 1974	November 26, 1976	July 5, 1982	None
Rockland, Town of		June 28, 1974	July 30, 1976	July 19, 1982	None
Scituate, Town of		September 6, 1974	None	September 30, 1977	October 1, 1983 September 29, 1986 July 2, 1992 October 16, 2003
Wareham, Town of		May 28, 1971	None	May 28, 1971	July 1, 1974 May 21, 1976 October 1, 1983 August 4, 1987 July 15, 1992
West Bridgewater, Town of		August 9, 1974	July 30, 1976	July 15, 1982	None
TABLE 16	FEDERAL EMERGENCY MANAGEMENT AGENCY		COMMUNITY MAP HISTORY		
	PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)				



COMMUNITY NAME		INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE(S)	FLOOD INSURANCE RATE MAP EFFECTIVE DATE	FLOOD INSURANCE RATE MAP REVISION DATE(S)
Whitman, Town of		October 18, 1974	June 11, 1976	July 2, 1981	None
TABLE 16	FEDERAL EMERGENCY MANAGEMENT AGENCY  PLYMOUTH COUNTY, MA (ALL JURISDICTIONS)			COMMUNITY MAP HISTORY	

## **7.0     OTHER STUDIES**

Information pertaining to revised and unrevised flood hazards for each jurisdiction within Plymouth County has been compiled in this FIS. Therefore, this FIS supersedes all previously printed FIS reports, FIRMs, and/or FHBMs for all of the incorporated jurisdictions within Plymouth County.

Plymouth County is bordered by Bristol County, MA and Norfolk County, MA. At the time of this revision, both of these counties were undergoing revisions. They will both be in agreement with this countywide FIS.

This FIS report either supersedes or is compatible with all previous studies published on flooding sources studied in this report and should be considered authoritative for the purposes of the NFIP.

## **8.0     LOCATION OF DATA**

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting FEMA Region I, 99 High Street, 6<sup>th</sup> Floor, Boston, MA 02110.

## **9.0     BIBLIOGRAPHY AND REFERENCES**

1. Federal Emergency Management Agency, Flood Insurance Study, Plymouth County, Massachusetts, Washington, D.C., July 17, 2012.
2. MassGIS, 2005 1:5,000 Color Orthoimagery, <http://www.massgis.gov/mgis>, April 2005
3. USGS, 2009 & 2013, 1:2,400 Orthoimagery, April 2009 and March and April 2013.
4. MassGIS, 2008 1:5,000 Color Orthoimagery, <http://www.massgis.gov/mgis>, April 2008
5. U.S. Census Bureau, 2000 Census of Population and Housing, Population and Housing Unit Counts, Massachusetts, Washington, DC, 2003.
6. U.S. Army Corps of Engineers, New England Division, Annual Peak Tide Levels, Boston Harbor, 86 Years of Records, 1848-1978, Waltham, Massachusetts, 1979.
7. Duxbury Clipper, Massachusetts, February 9 and 16, 1978.
8. U.S. Department of the Interior, Geological Survey, High Water Marks in Massachusetts and New Hampshire for Coastal Storm of February 1978, Washington D.C., 1979.
9. The Boston Globe, Boston, Massachusetts, February 7, 1978.
10. The Boston Globe, Boston, Massachusetts, February 8, 1978
11. The Boston Globe, Boston, Massachusetts, February 9, 1978.
12. The Boston Globe, Boston, Massachusetts, February 10, 1978.

13. The Boston Herald American, Boston, Massachusetts, February 7, 1978.
14. The Quincy Patriot Ledger, Boston, Massachusetts, March 7, 1962.
15. The Quincy Patriot Ledger, Boston, Massachusetts, August 20, 1955.
16. The Boston Herald American, Boston, Massachusetts, August 18, 1955.
17. The Boston Herald American, Boston, Massachusetts, August 19, 1955.
18. U.S. Army Corps of Engineers, New England Division. (1979). Tidal Flood Profiles for the New England Coastline. Waltham, Massachusetts, January 1980.
19. Marshfield Mariner, Marshfield, Massachusetts, February 9 and 16, 1978.
20. The Boston Globe, Boston, Massachusetts, February 8-12 and 20, 1978.
21. The Quincy Patriot Ledger, Quincy, Massachusetts, March 8, 1962.
22. Federal Emergency Management Agency, Flood Insurance Study, Town of Marshfield, Plymouth County, Massachusetts. Washington, D.C., October 1, 1983.
23. Marshfield Conservation Commission, Polder Flooding report in Marshfield, Massachusetts, H.W. Harrington, Massachusetts Conservation Administrator. Massachusetts, February 1982.
24. NOAA Satellite and Information Service, National Climatic Data Center, US Department of Commerce, retrieved July 2012 from <http://www.ncdc.noaa.gov/oa/satellite/satelliteseye/cyclones/pfctstorm91/pfctstorm.html>
25. Massachusetts Emergency Management Agency, Department of Conservation and Recreation, Commonwealth of Massachusetts, State Hazard Mitigation Plan, October 2010.
26. U.S. Geological Survey, Water Resource Division, Open-File Report 2010-1315, Elevation of the March-April 2010 flood high water in selected river reaches in central and eastern Massachusetts by Zarriello, P.J., and Bent, G.C., 36 p. (Also available at <http://pubs.usgs.gov/ofr/2010/1315/>).
27. Boston Globe, "Tired Irene slaps N.E"., retrieved July 2012 from [http://articles.boston.com/2011-08-29/news/29941847\\_1\\_flood-waters-hurricane-irene-vermont-town/](http://articles.boston.com/2011-08-29/news/29941847_1_flood-waters-hurricane-irene-vermont-town/)
28. NOAA Satellite and Information Service, National Climatic Data Center, US Department of Commerce, retrieved July 2012 from <http://www.ncdc.noaa.gov/stormevents>
29. U.S. Army Corps of Engineers, New England Division, Letter to Mayor of Brockton Concerning Flooding Along Salisbury Brook and Salisbury Plain River, May 29, 1975.

30. U.S. Army Corps of Engineers, Profile and Cross Sections of Salisbury Brook and Salisbury Plain River, unpublished.
31. Town of Duxbury, Protective By-Laws, Duxbury, Massachusetts, 1980.
32. Town of Marshfield, Zoning Board, Zoning By-Laws, Massachusetts, June 12, 1972, amended April 22, 1978.
33. Zoning Regulations and Building Code, Town of Mattapoisett, Massachusetts.
34. U.S. Geological Survey, Water Resources Division, Progress Report on Flood Magnitude and Frequency of Massachusetts Streams, Carl G. Johnson and Gary D. Tasker, March 1974.
35. U.S. Department of the Interior, Geological Survey, Water-Supply Paper 2214, Estimating Peak Discharges of Small, Rural Streams in Massachusetts, by S. William Wandle, Jr., 1983.
36. Johnson and Tasker, Hydrologic Study: Small Watersheds, Progress Report on Flood Magnitude and Frequency of Massachusetts Streams, March 1974.
37. U.S. Department of the Interior, Geological Survey, Water-Supply Paper 1672, Magnitude and Frequency of Floods in the United States, Part 1-B. North Atlantic Slope Basins, New York to York River by Richard H. Tice, Washington D.C., 1968
38. U.S. Department of the Interior, Geological Survey, Water Supply Paper 1526, Hydraulic and Hydrologic Aspects of Flood Plain Mapping, by S.W. Wiitala, K.R. Jetter, and A.J. Summerville, Washington D.C., 1961.
39. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 Feet: Bridgewater, Massachusetts, 1962; Brockton, Massachusetts, 1963; Whitman, Massachusetts, 1962; Taunton, Massachusetts, 1962.
40. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:25,000, Contour Interval 10 Feet: Bridgewater, Massachusetts, 1962; Assonet, Massachusetts, 1963; Plympton, Massachusetts, 1977; Assawompset pond, Massachusetts, 1963; Snipatuit Pond, Massachusetts, 1962.
41. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Bridgewater, Plymouth County, Massachusetts, Washington, D.C., November 17, 1981 (Flood Insurance Study Report), May 17, 1982 (Flood Insurance Rate Map).
42. U.S. Geological Survey, Nationwide Summary of U.S. Geological Survey Regional Regression Equations for Estimating Magnitude and Frequency of Floods for Ungaged Site, 1993 Water Resources Investigations Report 94-4002.
43. U.S. Department of Agriculture, Soil Conservation Service, National Engineering Handbook, Section 4, Hydrology, August 1972.

44. Camp, Dresser & McKee Incorporated, Master Plan Study for D.W. Field Park, April 1968.
45. U.S. Department of the Interior, Geological Survey, Estimating the Magnitude and Frequency on Natural-Flow Streams in Massachusetts, by S. William Wandle, Jr., Boston, Massachusetts, 1977.
46. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Bridgewater, Plymouth County, Massachusetts, Washington, D.C., September 8, 1999.
47. Water Resources Council, Guidelines for Determining Flood Flow Frequency, Bulletin 17A, Washington, D.C., June 1977.
48. U.S. Department of the Interior, Geological Survey, Water Resources Data for Massachusetts, New Hampshire, Rhode Island, and Vermont, 1967-1975, Washington, D.C., 1976.
49. Federal Emergency Management Agency, Flood Insurance Study, Town of Pembroke, Plymouth County, Massachusetts, Washington, D.C., February 19, 1982.
50. Federal Emergency Management Agency, Flood Insurance Study, Town of Pembroke, Plymouth County, Massachusetts, Washington, D.C., November 15, 1979.
51. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Flood Hydrograph Package, Dam Safety Version, Davis, California, July 1978, modified April 1980.
52. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Flood Hydrograph Package, Users Manual, Davis, California, January 1973.
53. U.S. Department of Commerce, Weather Bureau, Technical Paper No. 40, Rainfall Frequency Atlas of the United States, Washington, D.C., 1961, Revised 1963.
54. Camp, Dresser & McKee, Inc., City of Brockton – Water-Supply Improvements, Basis of Design for Proposed Outlet Works at Monponsett Pond and Furnace Pond, July 1964.
55. U.S. Department of Agriculture, Soil Conservation Service, Technical Paper 55, Urban Hydrology for Small Watershed. Washington, D.C., January, 1975.
56. U.S. Department of Agriculture, Soil Conservation Service, NETSC Technical Note – U.D. 20 (rev.), Tabular Method of Flood Routing, 24-Hour Type II Storm Distribution, Brodman, Pennsylvania, October 29, 1976.
57. Johnstone, Don and W.P. Cross, Elements of Applied Hydrology, New York, Ronald Press, 1949.
58. Gray, Donald M., Handbook on the Principle of Hydrology, Port Washington, New York, 1973.

59. U.S. Geological Survey Fact Sheet 2012-3038, 2012, Calculating weighted estimates of peak streamflow statistics, T.A Cohn, Charles Berenbrock, J.E. Kiang, and R.R Mason, 4 p., at <http://pubs.usgs.gov/fs/2012/3038/>.
60. U.S. Geological Survey Scientific Investigations Report 2012-5109, 2012, Magnitude of flood flows for selected annual exceedance probabilities in Rhode Island through 2010, by P.J Zarriello, E.A Ahearn, and S.B. Levin, 81 p. (Also available at <http://pubs.usgs.gov/sir/2012/5109>).
61. U.S. Geological Survey Water-Resources Investigations Report 91-4157, 1992, Techniques for estimating magnitude and frequency of floods in South Carolina, 1988, by W.B Guimaraes, and L.R. Bohman, 175 p.
62. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis California, September 1988.
63. U.S. Army Corps of Engineers, Hydrologic Engineering Center, Application of the HEC-2 Bridge Routines, Training Document No. 6, Davis California, June 1974.
64. U.S. Department of Transportation, Federal Highway Administration, Hydraulic Circular No. 5, Charts for the Selection of Highway Culverts, Washington, D.C., December 1965.
65. Federal Emergency Management Agency, Flood Insurance Study, Town of Middleborough, Plymouth County, Massachusetts, Washington, D.C., February 1, 1983 (Flood Insurance Study Report), August 1, 1983 (Flood Insurance Rate Map).
66. Federal Emergency Management Agency, Flood Insurance Study, Town of Hanover, Plymouth County, Massachusetts, Washington, D.C., June 15, 1982
67. Ven Te Chow, Open-Channel Hydraulics, New York, McGraw-Hill, 1959.
68. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Town of Marshfield, Plymouth County, Massachusetts, Washington, D.C., October 14, 1977.
69. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of East Bridgewater, Plymouth County, Massachusetts, (Unpublished).
70. Avis Airmap, Inc., of Braintree, Massachusetts, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 5 Feet: Town of Hingham, Massachusetts, 1979.
71. Commonwealth of Massachusetts, Department of Public Works, Report on Town Brook and Home Meadows, Hingham, Massachusetts, Boston, Massachusetts, March, 1970.
72. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis California, October 1973.

73. Perkins Engineering, Inc., Zoning Map, Part B, Flood Plain and Watershed Protection District, 1975, Town of Hingham, Scale 1" = 1,600', July 1975.
74. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Carver, Massachusetts, July, 1979.
75. Moore Survey and Mapping Corporation, Topographic Maps compiled by photogrammetric methods, Scale 1:1,200, Contour Interval 2 Feet: Norwell, Massachusetts, April 1974.
76. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Plympton, Massachusetts, July, 1969.
77. New Bedford Chamber of Commerce, "General Information Concerning Achushnet, Dartmouth, Fairhaven, Freetown, Marion, Mattapoissett, New Bedford, Rochester, Wareham and Westport," New Bedford, Massachusetts.
78. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 Feet: Hanover, Massachusetts, 1962.
79. Avis Airmap, Inc. of Braintree, Massachusetts, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 5 Feet: Town of Plymouth, Massachusetts, 1978.
80. U.S. Army Corps of Engineers, Hydrologic Engineering Center, HEC-2 Water Surface Profiles, Generalized Computer Program, Davis, California, August 1977.
81. U.S. Department of Army Corps of Engineers, Hydrologic Engineering Center, HEC-1 Water-Surface Profiles, Users Manual. Davis, California, November 1976.
82. Federal Emergency Management Agency, Federal Insurance Administration, Flood Insurance Study, Town of Halifax, Plymouth County, Massachusetts, (Unpublished).
83. U.S. Department of the Interior, Geological Survey, 1989, Guide for Selecting Manning's Roughness Coefficients for Natural Channels and Flood Plains, Water-Supply Paper 2339, by G.J. Arcement, Jr., and V.R. Schneider, Washington, D.C., 38 p.
84. U.S. Department of the Interior, Geological Survey, 1998, Estimation of Roughness Coefficients for Natural Stream Channels with Vegetated Banks, Water-Supply Paper 2441, by W.F. Coon 133 p.
85. Federal Emergency Management Agency, July, 2012, Flood Insurance Study, Bristol County, Massachusetts (All Jurisdictions). Washington, D.C., 215 p.
86. Federal Emergency Management Agency, July, 2008, Flood Insurance Study, Plymouth County, Massachusetts (All Jurisdictions). Washington, D.C., 227 p.
87. U.S. Army Corps of Engineers, 2010, Hydrologic Engineering Center, HEC-RAS, River Analysis System, version 4.1.0, Jan, 2010.

88. U.S. Army Corps of Engineers, Hydrologic Engineering Center, 2002, HEC-GeoRAS 10.1 for ArcGIS 10.1, accessed on June 5, 2010, at URL [http://www.hec.usace.army.mil/software/hec-ras/hec-georas\\_downloads.html](http://www.hec.usace.army.mil/software/hec-ras/hec-georas_downloads.html)
89. Harris-Toups Associates, Computer Programming RIVSRG, Lake Success, New York, 1977.
90. Harris-Toups Associates, Coastal Flooding Analysis, Flood Insurance Study, Boston, Massachusetts, Lake Success, New York, November 1977.
91. Tetra Tech, Inc., Coastal Flooding Storm Surge Model, Parts I and II, Pasadena, California, May, 1978.
92. Federal Emergency Management Agency, Flood Insurance Study, Town of Plymouth, Plymouth County, Massachusetts, Washington, D.C., December 19, 2006.
93. Federal Emergency Management agency, Guidelines and Specifications for Wave Elevation Determination and V Zone Mapping Final Draft, Washington, D.C., March 1995.
94. Federal Emergency Management Agency, Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix D: Guidance for Coastal Flooding Analyses and Mapping. Washington, D.C., April 2003.
95. Federal Emergency Management Agency, Atlantic Ocean and Gulf of Mexico Coastal Guidelines Update, February 2007.
96. U. S. Department of Commerce, National Oceanic and Atmospheric Administration, National Oceanic Survey, Tides: Monthly Means and Extremes, Cape Cod Canal, Sandwich, Massachusetts, 1955-1975, Washington, D. C., 1978.
97. Yoshimi Goda, Random Seas and Design of Maritime Structures, 2nd Edition, World Scientific, 2000.
98. Sanborn Map Company, Inc, based on North American Vertical Datum of 1988, accurate to 2-ft contours, date of LIDAR data acquisition, November 2006.
99. Green International Affiliates, Inc., Coastal Transect Field Survey, 2006.
100. National Oceanographic and Atmospheric Administration (NOAA) National Ocean Service (NOS) Hydrographic Data Base (NOSHDB) and Hydrographic Survey Meta Data Base (HSMDB) (NOAA), Bathymetry, May 27, 2010.
101. U.S. Army Corps of Engineers, Coastal Engineering Research Center, Shore Protection Manual, (Volumes I and II, 4th Edition), Washington, D.C., 1984.
102. Massachusetts Office of Geographic Information, Commonwealth of Massachusetts, Medium Resolution Orthoimagery for State of Massachusetts, Scale 1:5,000, Produced by Sanborn, LLC of Colorado Springs, April 9 through April 17, 2005.



103. U.S. Army Corps of Engineers. 2002, updated through 2011. Coastal Engineering Manual. Engineer Manual 1110-2-1100, U.S. Army Corps of Engineers, Washington, D.C. (in 6 volumes).
104. Divoky, D., Supplementary WHAFIS Documentation, WHAFIS 4.0, A Revision of FEMA's WHAFIS 3.0 Program, August 10, 2007.
105. Federal Emergency Management Agency, Coastal Hazard Analysis Modeling Program (CHAMP), Version 2.0, Washington, D.C., August 2007.
106. Federal Emergency Management Agency, Coastal Hazard Analysis Modeling Program (CHAMP), Users Guide, Version 2.0, Washington, D.C., August 2007.
107. National Academy of Sciences, Methodology for Calculating Wave Action Effects Associated with Storm Surge, Washington, D.C., 1977.
108. Federal Emergency Management Agency, "Procedure Memorandum No. 50 – Policy and Procedures for Identifying and Mapping Areas Subject to Wave Heights Greater than 1.5 feet as an Informational Layer on Flood Insurance Rate Maps (FIRMS)," Washington, D.C., December 3, 2008.
109. Federal Emergency Management Agency, Users Manual for Wave Height Analysis, Washington, D.C., February 1981.
110. Photo Science, Light Detection and Ranging (LiDAR), 2 foot contours, 2010.
111. Camp, Dresser & McKee, Inc., Old Colony Water Pollution Control District, Preliminary Contour Map, Scale 1:2,400, Contour Interval 5 feet, Town of Abington, Massachusetts, 1975
112. U.S. Department of the Interior, Geological Survey, Quadrangle Maps, 7.5 Series: Whitman, 1974.
113. U.S. Department of the Interior, Geological Survey, Quadrangle Maps, 7.5 Series: Blue Hills, 1971, Brockton, 1963, Duxbury, 1974, East Bridgewater, 1962, Hanover, 1978, Hull, 1974, Nantasket Beach, 1974, Plympton, 1962, Weymouth, 1971, and Whitman, 1962.
114. U.S. Department of the Interior, Geological Survey, Quadrangle Maps, 7.5 Series: Blue Hills, Bridgewater, 1977.
115. Federal Emergency Management Agency, Flood Hazard Boundary Map, Town of Carver, Plymouth County, Massachusetts, Washington, D.C., July 29, 1975.
116. ENSR, Flood Zones and Elevations, Topographic Works Maps, Scale 1:4800, Contour Interval 4 Feet, Duxbury, Massachusetts, July 2, 2001.
117. Avis Airmap, Inc., of Braintree, Massachusetts, Strip Mapping, Scale 1:4800, Contour Interval 5 Feet: Duxbury, Massachusetts, 1978.

118. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Halifax, Massachusetts, July, 1979.
119. Federal Emergency Management Agency, Flood Hazard Boundary Map, Town of Halifax, Plymouth County, Massachusetts, Washington, D.C., November, 1974.
120. Commonwealth of Massachusetts, Department of Public Works, Photogrammetric Maps, Scale 1:2,400 Contour Interval 5 Feet, Brockton, Massachusetts, May, 1963.
121. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Hanover, Massachusetts, July, 1979
122. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Hanover, Plymouth County, Massachusetts, Washington, D.C., August, 1977.
123. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Hanson, Massachusetts, July, 1979
124. James W. Sewall, Inc., of Old Town, Maine, Topographic Maps compiled by photogrammetric methods, Scale 1" = 400', Contour Interval 4 Feet: Hanson, Massachusetts, 1984.
125. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Town of Hingham, Plymouth County, Massachusetts, Washington, D.C., October 15, 1976.
126. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps: Scale 1:24,000, Contour Interval 10 feet: Weymouth, 1971, Photorevised 1979; Cohasset, 1974; Hull, 1971, Nantasket Beach, 1974.
127. Avis Airmap, Inc., of Braintree, Massachusetts, Strip Mapping, Scale 1:4,800, Contour Interval 5 Feet: Town of Hull, Massachusetts, 1978.
128. Avis Airmap, Inc., of Braintree, Massachusetts, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 5 Feet: Town of Kingston, Massachusetts, 1979.
129. Perkins Engineering, inc of Kingston, Massachusetts, Zoning Map of Kingston, Massachusetts, March 20, 1971, revised March 18, 1972.
130. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Kingston, Massachusetts, October 19, 1976.
131. U.S. Army Corps of Engineers, New England Division, Topographic Maps, Scale 1:4800, Contour Interval 5 Feet, Marion, Massachusetts.
132. Avis Airmap, Inc., Topographic Maps, Scale 1:1200, Contour Interval 2 Feet, Town of Marshfield, Massachusetts, 1980.

133. ENSR, Flood Zones and Elevations, Topographic Works Maps, Scale 1:4800, Contour Interval 4 Feet, Marshfield, Massachusetts, July 2, 2001
134. U.S. Army Corps of Engineers, New England Division, Topographic Maps, Scale 1:4800, Contour Interval 5 Feet, Mattapoisett, Massachusetts.
135. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Insurance Study, Town of Mattapoisett, Massachusetts, October 1, 1983.
136. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Norwell, Plymouth County, Massachusetts, Washington, D.C., July 9, 1975.
137. Avis Airmap, Inc., Topographic Maps, Scale 1:4800, Contour Interval 5 Feet, Town of Plymouth, Massachusetts, 1978.
138. Massachusetts GIS, Orthophotographic Work Maps of Plymouth Coastline, Scale 1"=400', Contour interval 3 meters, Plymouth, Massachusetts, 2000.
139. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps: Scale 1:24,000, Contour Interval 10 feet: Duxbury, Manomet, Plymouth, and Sagamore, 1977.
140. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps: Scale 1:24,000, Contour Interval 10 feet: Plymouth, Massachusetts, 1977; Manomet, Massachusetts 1977; Sagamore, Massachusetts, 1967, photorevised 1979; Plympton, Massachusetts, 1977; Wareham, Massachusetts, 1972.
141. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Plympton, Halifax Massachusetts, 1977.
142. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Plympton, Plymouth County, November 1974.
143. Col-East, Inc., of North Adams, Massachusetts, Topographic Maps compiled by photogrammetric methods, Scale 1" = 400', Contour Interval 5 Feet: Rochester, Massachusetts, July 1979.
144. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Rochester, Plymouth County, Massachusetts, Washington, D.C., September 8, 1975.
145. Col-East Inc., of North Adams, Massachusetts, Photogrammetric Maps, Scale 1:4,800, Contour Interval 5 Feet: Rockland, Massachusetts, July, 1979.
146. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Rockland, Plymouth County, Massachusetts, Washington, D.C., November 1974.

147. Avis Airmap, Inc. of Braintree, Massachusetts, Topographic Maps compiled from aerial photographs, Scale 1:4,800, Contour Interval 5 Feet, Town of Scituate, Massachusetts, 1978.
148. Federal Emergency Management Agency, Flood Insurance Study, Town of Scituate, Plymouth County, Massachusetts, Washington, D.C., September 29, 1986.
149. U.S. Army Corps of Engineers, New England Division, Topographic Maps, Scale 1:4800, Contour Interval 5 Feet: Wareham, Massachusetts.
150. Federal Emergency Management Agency, Flood Insurance Study, Town of Wareham, Plymouth County, Massachusetts, Washington, D.C., October 1, 1983.
151. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of West Bridgewater, Plymouth County, Massachusetts, Washington, D.C., July 1976.
152. Teledyne, Inc., Topographic Maps compiled by photogrammetric methods, Scale 1"=400', Contour Interval 5 Feet, Whitman, Massachusetts, June 1976.
153. U.S. Department of Housing and Urban Development, Federal Insurance Administration, Flood Hazard Boundary Map, Town of Whitman, Plymouth County, Massachusetts, March 12, 1978.